Miscellanea

"An Open Letter From Apple's CEO" John Sculley appears in the October 1990 issue of inCider (pp. 8-9). Most of the letter is the same "good" news that we've been hearing, with references to new products announced for Apple II systems over the last year and an assurance that "we value the Apple II product family as an asset, which we will continue to nourish".

The next line in the article, though, reveals the same callous treatment of Apple II users that has becomes Apple's, and Sculley's, trademark: "Beyond that, I am not at liberty to disclose specific product plans." This in a paragraph following the announcement that "During 1990 and 1991, Apple will introduce several new entry-level Macintosh computers...". If the CEO of the company talks about unannounced Macintosh products but refuses to discuss Apple II products, what message does that send to Apple II customers?

It is appalling that the CEO of a company cannot find and eliminate the duplicity that has caused the exact problem that he appears to be trying to address. The reason Apple II users are upset with Apple is that they feel they long had **no** support, and now seem to receive only token support, from your company. When offered, nearly every alternative seems to bring the phrase "Macintosh" out of Apple's mouth. Switching computers isn't the answer, and has no place in discussions of the Apple II user base. Give these customers parity in treatment with the CPU line that their dollars financed. Then we'll talk about migration to other Apple platforms.

Roger Wagner Publishing gives away free software. Well, now that we've got your attention, we'll clarify that the "free software" is the version 2.1 update to *HyperStudio*, which includes a runtime module that can be distributed free with non-commercial applications. So, if you like, you can write a freeware *HyperStudio* application and distribute with the runtime module. Commercial applications require licensing from Roger Wagner Publishing.

And next is the real message: If you own *HyperStudio* versions prior to 2.1, register your copy and get the update. It's free, it's much more powerful, and you're going to discover that most *HyperStudio* authors are using the new features profusely and that version 2.0 will not operate the 2.1 stacks. Version 2.1 will load and convert 2.0 stacks automatically; you can save the converted version if you like.

If you have not received an update notice, check to see if you mailed your warranty registration card to Roger so you can get update information. Roger estimates that only 70% of HyperStudio owners have sent in their warranty cards, and only 50% of those have applied for the upgrade.

The HyperStudio Xcmd Library Disk, Volume 1 ($49.95 from Roger Wagner Publishing, 1050 Pioneer Way, Suite P, El Cajon, Calif. 92020, 619-442-0522), contains a series of "extended commands" to enhance *HyperStudio*. By using Xcmds, you can make *HyperStudio* do anything that a IIgs program can do.

As supplied, *HyperStudio* only supports one Xcmd file. When you execute a stack, *HyperStudio* looks in the same folder (directory) as the stack for a file named HS.XCMD. If the file is found, it is loaded and the program it contains is called whenever you activate a *HyperStudio* button that has "Trigger Xcmd" marked as the button action. There is a prescribed form for the passing of parameters between the Xcmd code and *HyperStudio*, but the Xcmd itself can do anything that

doesn't interfere with *HyperStudio*'s continued operation.

One of the Xcmd utilities on the Xcmd Library disk is a "Master Xcmd". If you copy this file to your stack's directory and give it the name "HS.Xcmd", you can then add many more Xcmd files by naming them as "Xcmd." with the filename appended, such as "Xcmd.Display". When you define a button in *HyperStudio* as triggering an Xcmd, you can use the name of the Xcmd "sub-file" in the text to be sent to the Xcmd to tell the Master Xcmd which feature you want to access. For example, to pass control to the "Xcmd.Display" file you'd enter "Display" as the text to be passed in the Xcmd command line (followed by any additional parameters that Xcmd.Display might use).
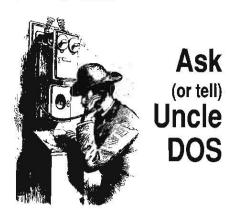
The Master Xcmd also supports a "Script" command that allows a series of Xcmd command lines in a text item (embedded in the stack) to be executed.

The types of Xcmds included on the disk allow controlling the border color of the IIgs display, playing music from an Apple CD-ROM drive, hiding the cursor, displaying Super High-Res graphics (including 320 mode graphics), generating user prompts in dialog boxes, detecting events (time delays, keyboard actions, or mouse clicks), finding text (an enhanced version of the *HyperStudio* FIND command that will search editable and read-only fields, with or without case sensitivity), displaying message dialogs, moving cards, communicating with a IIgs port, generating a random number, setting the key color for an Apple Video Overlay Card (VOC), controlling the VOC genlock, and choosing the use of the VOC. Most of these commands were written by Ken Kashmarek, with credit for the Border Xcmd going to Steve Allen.

If you'd like to write your own Xcmds and would like some examples, there's also sample source code that you can purchase separately.

If you're wondering what's up Roger's and Ken's sleeve for the next round: at Apple Fiesta in Tempe, Arizona, I saw Roger demonstrating an Xcmd that would record through HyperStudio's microphone when triggered and save the recorded sound in a disk file. Roger suggested this would be an interesting way to conduct testing that requires an oral component, such as pronunciation of foreign words. The student would execute the stack to take the test, then take the disk with the recorded responses to the instructor for review.—DJD

ON A BET, HOWIE LENDELMAN, THE OFFICE TINKERER TRIES LINKING HIS T.I. CALCULATOR INTO THE SCIENCE LABS APPLETALK NETWORK.

HE'S GETTING FILES!
HE'S GETTING FILES!

Ask (or tell) Uncle DOS

If you've written a letter in the last couple of years and haven't received an answer, it's probably either in a very dog-eared stack of mail that I'm wrestling with replies to, or it's been lost. I've gotten a few "where's my answer to such-and-such" queries lately, and in some cases I haven't been able to locate the original questions.

Please fall back to the plan Tom Weishaar mentioned many issues ago (back in "Don't despair..." in April 1985, p. 29). If you send a letter, save a copy on disk; if you don't see an answer within a few weeks, try again. In some cases, they've been stashed in a "safe place" to be answered when I had more time to puzzle them out, only to disappear in a black hole at the office or at home. Occasionally, I find dates on the letters that frighten me.

Our intent continues to be to try and respond to all inquiries. Some of the questions may go unanswered, especially questions of the type "Can you tell me everything about zzz? I don't want to buy the manual." or "I have this program xxx and could you modify it to work with yyy?". If "zzz" is a subject covered in a magazine or a book that I can locate, I'll try to point you that direction, but if it takes more than a few sentences to describe I'll have to pass on paraphrasing. The same goes for questions where a specific program has to be researched; some of those "trivial" AppleWorks patches we used to do could take an hour or so to find and test. We do want to solve your problems, but I'm discovering that we can't solve all the problems and have time left at the end of the day to unwind. Sanity is a fragile thing...—DJD

Hiding Apple 5.25

In the last issue of **A2-Central**, Mr. Walter Monhof asked why the light on the 3.5 UniDisk and the 5.25 disk drives keep pulsing and how to stop it.

As you said, there is no way to stop GS/OS from polling the UniDisk drive which causes the light to pulse other than re-writing GS/OS. However, unless it is absolutely necessary for the 5.25 drives to be available to GS/OS, there is a way to stop them from pulsing: remove the 5.25 drivers from the SYSTEM/DRIVERS folder.

Without the driver, GS/OS cannot recognize the fact that there are 5.25 disk drives attached. But ProDOS 8 can still recognize them! ProDOS 8 does not use the drivers even if launched from GS/OS. Therefore ProDOS 8 recognizes all attached disk drives and all ProDOS 8 programs such as AppleWorks (classic) can still use the 5.25 drives.

The user can even boot from the 5.25 disk drives since the initial boot stages are still in ProDOS 8. GS/OS and its drivers start up later in the boot process. All the user has to do is change the boot disk in the Control Panel, type PR#6 from Applesoft BASIC or use a program that will boot from the 5.25 drives.

The polling of the 3.5 UniDisk drive should not cause too much, if any, damage to the drive. Like you, it has been going on here for a number of years without any apparent effect on my UniDisks. The polling and light pulsing should not go on for a long time since it is expected that the user will be starting up an application program. When in an application program, the polling and pulsing do not occur.

If the user wants to leave the Apple IIgs powered up for a while but not leave it in an application program, going into the Control Panel (Ctrl-OA-Esc) will also stop the drives from pulsing. Then from the Control Panel, pressing Esc then Return will return the user to the GS/OS desktop and pulsing will resume.

John R. Majka
Louisville, Ky.

If you're sure that you'll almost never want to use the 5.25 drives from GS/OS, you can delete the APPLEDISK5.25 driver completely. If you think you might want to use the drives occasionally from GS/OS, then you can open the SYSTEM/DRIVERS folder, select the APPLEDISK5.25 icon, use "Icon Info" from the "Special" menu (or open-apple-I from the keyboard) to show the icon's info box, and check the box labelled "Inactive". When you re-boot, the driver will not be activated, but it will still be present on your boot disk to re-activate later without having to re-install it.

If you almost never use the 5.25 drive from any program (GS/OS or ProDOS 8), you may want to change the Control Panel setting for Slot 6 to "Your Card". I keep a stereo/digitizer card in slot 6 since I very seldom use the 5.25 drive. I know I won't need the 5.25 drive active when I am planning on using the digitizing function (the stereo function works with or without the slot set to "Your Card"), so it's a relatively painless way to find an "extra" slot.—DJD

Drives and GS/OS

I am having trouble with the System Disk included with my copy of AppleWorks GS recognizing my Sider hard disk (their controller card, slot 7) and Central Point 3.5 disk drive (their controller card, slot 2). If I boot the hard drive it still goes into DOS 3.3 so I cannot install GS/OS on the Sider. If I boot on the Central Point drive the system will recognize the drive but halfway into the boot I get the message "Unidisk 3.5 requires driver" even after installing the driver on the boot disk. GS/OS will not recognize the Sider hard disk at all. I have tried installing a SCSI driver on the boot disk.

John C. Wing
Mechanicsburg, Ohio

GS/OS uses drivers to communicate with peripheral devices. These drivers can be "loaded drivers" specifically designed for specific devices (such as the UNIDISK3.5 driver). If GS/OS finds a device that it can recognize but does not find that a loaded driver exists for it, it will create a "generated driver" for the device. In some cases, loaded drivers are necessary for GS/OS functions to work safely; for example, the floppy drivers check to see if a disk swap has occurred so GS/OS's caching scheme won't write to the incorrect volume

undetected.

As GS/OS boots, it first loads and executes the files (in your System/Drivers folder) associated with loaded drivers so that each driver can determine if its device is present. If so, the driver remains in memory for GS/OS to use. Otherwise, the driver is purged and GS/OS must fall back to see if it can apply a generated driver.

*Your Central Point **Universal Disk Controller** and drive is apparently failing the test that the UniDisk 3.5 driver is applying to verify the presence of a UniDisk, so the driver is "unloaded". Then GS/OS's simple test of the interface is confused into thinking that the device is a UniDisk, but that you've failed to install the UNIDISK3.5 driver since the driver is no longer resident. There's no easy way to solve the problem, though you may want to write Central Point and express an interest in the development of a loaded driver for the Universal Disk Controller (information on writing loaded drivers is available in the second volume of the **GS/OS Reference**, available through APDA).*

*Some hard disk interface manufacturers have written such drivers for their interface cards and drives. First Class Peripherals (the manufacturers of the **Sider**) developed drivers for their newer drives. For the older (models) drives that boot into DOS 3.3, there is an upgrade ROM and drivers available from Bob Consorti of **On Three** at 312-338-2202. The ROM upgrade is necessary to make the Sider a ProDOS device; it eliminates the Sider's "multi-operating system" (DOS 3.3, ProDOS, Pascal, CP/M) feature, but makes the device compatible with most current software. If you still need DOS 3.3 partitions, Glen Bredon's DOS.Master ($25 from Glen at 521 State Road, Princeton, N.J. 08540) is one way to add them to your hard disk.—DJD*

5.25 drive speed

How can I change drive speed on an Apple IIgs 5.25 disk drive?

Dick Penney
Thompson, Conn.

For the UniDisk 5.25 and Apple 5.25 drives, turn the drive upside down with the disk slot facing you. Find the rubber foot at the left front side of the upside-down drive; to the right of the foot, you'll see a small hole. That's the pilot hole to the speed adjustment screw, which can be turned with a small Phillips-head screwdriver.

***Copy II Plus** contains a "Verify Disk Speed" option that can be used to monitor the speed as you make the adjustment; "optimal" speed is 300 revolutions per minute, or 200 milliseconds per revolution. My experience is that it is better to err on the slightly "slow" side; that is, if the drive speed seems to jump around by 0.5 milliseconds, it's better to set it to vary between 200.0 and 200.5 than to try to center the speed around 200.0.—DJD*

3.5 drive speed

Thank you for continuing the best computer literature (any format, any computer). I hope you can help me or steer me in the right direction with a few problems I've been unable to solve.

The first is with an AMR 3.5 you supplied me with earlier this year. I have been very happy with it (hooked up to a *PC Transporter* card) reading and writing 3.5 inch disks in both Pro-DOS and MS-DOS formats. That was until a couple of weeks ago when I tried to read data sent to me from a colleague. The drive refused to read the ProDOS disks at any level, giving input/output errors. I then tried these same disks on another friend's Apple drive and lo and behold all was OK.

I have since gone through a selection of 3.5 inch disks from different sources and found that roughly 50% are unreadable but still I have absolutely no trouble with my own formatted ProDOS disks. I should have given more thought to it but previously the drive had refused to format about half a batch of disks under MS-DOS though the MS-DOS rejects were perfectly OK when formatted under ProDOS. I have tested the drive with a number of utilities which all say the drive is healthy, so I feel that the speed may be slightly out of tolerance. In the past I have adjusted 5.25 inch drive speeds successfully but do not have any utility program for 3.5 drives nor have I yet tried to open it up to see where adjustment might be made. I don't want to send the drive back to the U.S.; do you have any suggestions?

The second problem is quite an odd one. I have two IIe's linked to a 30 megabyte CMS drive, each computer with a CMS SCSI card with different IDs. Both work fine as long as I don't try accessing the same information from both computers at once. The peculiar problem is with the second (in the SCSI daisy chain) computer on cold boot.

No matter what I do it will not acknowledge the presence of a disk device in slot 4 (CMS SCSI card) on first cold boot—it's fine on the second cold boot and still OK even if I switch this computer off for a few hours, but if it is left off overnight two cold boots are needed again the next morning. This computer is set up as follows:

```
Aux Slot   RAMWorks III 1 megabyte
Slot 1     Parallel printer card
Slot 2     clock card
Slot 4     CMS SCSI
Slot 5     PC Transport with two drives
Slot 6     DuoDisk with controller
Slot 7     vacant
```

I start blowing power supplies with a full house.

This problem is somewhat academic as I can live with the alternatives—leaving the computer virtually permanently on or double cold booting, but I can't figure out about the second boot or why it's not random. It always happens the same way, first no go, second always OK. Any ideas?

Finally—and this is not a problem—I read with great interest your May 1990 article on program selectors. Your readers may be unaware that Gary Little has a very useful little program starting on p. 107 in *Exploring Apple's GS/OS and ProDOS 8*. This can be used as a stand-alone program to get back into BASIC after a short session with Filer, etc., or as the basis for developing your own full-fledged selector. Side effect: it's possible to get locked into BASIC or disconnect other selectors (like *ProSel*).

John O'Farrell
East Brighton, Vic.

I haven't seen a utility to measure the drive speed on Apple-compatible 3.5 drives. Part of the problem may be that the Apple drives are variable speed; the rate of rotation is varied at different points on the drive so that slightly more data can be stored than on their MS-DOS counterparts (800K versus 720K for two sided "double density" diskettes). Debate has raged over whether this "complication" is part of the reason Apple's drives are more expensive than MS-DOS counterparts, but since Apple's use of 3.5 drives on personal computers predates IBM's the argument seems to benefit from hindsight.

Even assuming a utility is found, I can't see any visible speed adjustment screw on the NEC mechanism used in the AMR drive we have here. It looks as if repair may be a "factory only" option.

We have a handful of readers who mention consistent problems reading some of the disks we send out. In most cases, we can read the disks returned to us without errors. There is no easy cure that we know of; the fact that thousands of disks go out without problems makes it unrealistic for us to modify our drives to match the few drives that have errors. All we can suggest is that the drives that are having trouble have somehow found a unique problem in reading our disks. It's a little like the man with two watches never knowing the "correct" time; a reader who has trouble reading a disk doesn't know if his drive or the disk (and the "remote" drive) is out of kilter.

There are a few other items that might contribute. If the drives are close to a color monitor, power supply, or other source of interference, it could be that the recorded signal on the disk is just barely being masked by the interference. Moving the drives or interposing a metal "shield" between the drives and the possible interference may help.

*If your system is heavily loaded, the strain on the power supply may be effecting the consistency of its output enough to cause small changes in the speed of the drive motor, or in the sensitivity of the read/write head. Removing as many unnecessary interface cards as possible will let you determine if this is the problem; if the disk mysteriously starts to read better with less load on the power supply, then the supply was probably overloaded. There is a conflict in that your "drive controller" (the **PC Transporter**) is probably one of the more power-hungry cards in use, and can't be removed while checking the 3.5.*

*The latter problem may also be connected to the problem in getting the SCSI drive recognized on power-up. Components aren't 100% identical, and it's possible that the "problem" IIe is having trouble getting itself started in the morning. The test is the same as for the 3.5 drive; try removing some of the high-drain cards and see if the system will start up more easily (in this case, you can remove the **PC Transporter** since it isn't needed to start the system from the CMS interface).—DJD*

Drive gone south

I have a 1.25 meg Apple IIgs running GS/OS 5.0.2 with a *SuperSonic* stereo card and a Rev. C SCSI card. My hard disk is a Seagate 138N, 32 megabyte, in a Tulin case. My recent hard disk experience has been nothing but trouble. After working correctly for about a year, I started getting error messages; for example, the computer couldn't find the SCSI driver. I used *ProSel 16* to lock out bad blocks and do whatever other repairs were available. However, the situation continued to deteriorate. For a while, I could rebuild the disk after a low level format but the disk would only work for a short period of time. Eventually, even the low level format programs couldn't communicate with the disk. *ProSel* reported an I/O error on block $0002.

I sent the Seagate to jb Technologies in Moorpark, Calif., for repair. Their service people said that the disk had lost its servo track marks and that the problem stemmed from inferior media used by Seagate. They replaced the media and rewrote the servo tracks. The returned disk formatted and checked out perfectly according to *SCSI Hacker* and the *ProSel* utilities. But after a month or so, the same problems started to crop up again. jb Technologies have agreed to fix the disk again on their repair warranty.

My question is this: could the problems result from external causes like power spikes or electromagnetic interference? I realize the latter suggestion is somewhat farfetched but my portable CD player goes bananas when used on my computer desk. It occasionally picks up radio stations and mistracks when I put my hand close to it. I would appreciate any light you can shed on this problem.

Incidentally, I don't mean to knock jb Technologies. They seem to be knowledgeable and they actually called me to explain a delay in the first repair! They were also cooperative about the warranty work.

Dave Condon
Belmont, Maine

Several years ago in graduate school, a friend used an Apple II in the proximity of his pet project, which used a lot of high-voltage X-ray equipment. He was confused by seemingly random characters which appeared in the output that he sent to his printer. It turned out that the parallel printer cable made a very good antenna for the electromagnetic effluvium from the X-ray equipment. Shielding the cable with some grounded metal foil solved the problem.

So the moral is, yes, it's possible that spikes or electromagnetic interference is interfering with the conversation between your hard disk and the computer. If your compact disk player doesn't like the environment, that's another clue. The question is, what to do about it?

Normally, the Apple IIgs shouldn't emit that much noise; it's been certified by the Federal Communications Corporation to meet or exceed the electromagnetic interference (EMI) emissions requirements for residential use. The FCC is concerned with such emissions since they can cause interference with home appliances (phones, televisions, and so on) and radio communications.

Peripherals that you add to the IIgs can potentially aggravate the problem. Apple peripherals of recent manufacture also have been checked with the FCC where appropriate; for example, Apple disk drives come with shielded cables. If you've attached other devices that have cables that extend outside the IIgs case, check to see if they are properly shielded. If not, they may be serving as antennas that broadcast interference. They may also be acting as antennas to receive other types of interference.

Since your CD player seems to make a good

indicator, try disconnecting the hard disk and see if the CD player starts behaving. If so, the interference is probably coming from the hard disk assembly, and if the disk isn't shielded enough to disguise emissions from itself then it may also not be shielded well enough to protect itself. You can try to shield the drive and cable by surrounding them with grounded, conducting metal (we used aluminum foil for the printer cable in the X-ray room; most hard drives have metal cases that serve to shield the internal electronics).

Power spikes would seem to be less of an issue unless you're also having trouble with other disk devices.

We've also heard from a few users who had drives that used the Seagate 138N mechanism (that size specifically) where the drive would have intermittent problems until it finally failed. In a couple of cases (one of them a drive Jay Jennings was using here) the read/write head seemed to be bonding to the hard drive platter until it finally welded itself in place. If the problem keeps recurring, jb Technologies may be able to advise whether the drive itself is suspect. We're glad to hear of a company that does hard disk repairs of that type.–DJD

Terminal emulation

I am looking for a VT-220 terminal emulation program for the Apple IIgs. VT-220 and higher does superb international character sets. Maybe you or your readers know of such a program.

Urs Brunner
Binningen, Switzerland

Native IIgs terminal programs are rare at this stage; the problem being that the current IIgs modem port driver is designed primarily as a printer, not communications, port driver. We hope there will be a loaded communications-capable driver in some future system software release.

An 8-bit program called **Modem MGR** *($50 from MGR Software, Suite 101, 305 S. State College Blvd., Anaheim, Calif. 92806, 714-993-0294) has a VT-220 emulation mode, but probably lacks the international character set support you are seeking (Incidentally, this program will even run on a II Plus). There is also a IIe/IIc work-in-progress call* **Agate** *that will handle custom character sets on the double high-resolution graphics screen (one of the author's intents is to support ANSI graphics characters in a terminal emulation). We'll see if a reader has a suggestion.—DJD*

Missing Icons

I have the ORCA/C, ORCA/M, and Orca/Desktop (latest updates). The snazzy ORCA icons you displayed in the June 1990 issue are not present on my disks. Did you do them yourself?

Nigel Harrison
Singapore

The snazzy **ORCA/Disassembler** *icon was supplied with the program. The "killer whale" icon came from a freeware file on GEnie; I modified the icon information to display a character indicating the type of shell file ("C" for C source, "X" for executeable, and so on) for several of the common file types.—DJD*

MD-BASIC, SyQuest drive

With this letter I am ordering MD-BASIC. After reading the review in **A2-Central** on disk, I had decided against this product since it required the APW or ORCA environments. Now that it can be run from the Finder, it seems much more attractive for me. I have the perfect application, a multi-module system written in Applesoft, Beagle-compiled, for which I had been using the Micol Macro editor under GS/OS. I had several; common subroutines, which I would merge as text source files—very slow and tedious. The "include" option in MD-BASIC seems perfect.

What is needed is a quick way (read "instantaneous") to switch from GS/OS to ProDOS 8 and back again. I have Roger Wagner's SoftSwitch but it does not seem to be the answer. Am I missing something, or are there some neat utilities or NDA's or CDA's out there to help me? I have a IIgs with 1.75 megabytes of memory and a 20 megabyte hard disk. Any ideas?

The second reason for this letter is to get some further information regarding the SyQuest removable media SCSI hard drive assembly. Coincidentally, I have just written to Hard Drives International in Tempe, Arizona, regarding this mechanism as an additional external hard drive for my MS-DOS based Compaq Portable II. I had seen the drive both as a back-up device for my internal drives as well as unlimited storage for clip art and desktop publishing packages. Now I am thinking I may be able to use the same drive at different times (and with different cartridges, of course) on my Apple IIgs and Compaq.

On the Compaq side, I realize I will need a SCSI adapter card, cable and driver software, along with an external drive, case and power supply. On the Apple IIgs, I understand I will need a new Apple high-speed SCSI card, its software drivers and a cable. Can I use the same SyQuest drive, with differently formatted cartridges, for both machines? Will I have to change switch settings or something whenever I switch machines? What do you think of the idea?

One complication on the Apple IIgs is that my locally built hard disk does not use a standard adapter card. I believe the adapter card emulates a SCSI card but I am not sure. The ROM is marked SLS 20 v2.4 and the system comes up using the Seven League Boot software on ROM. It works well with IIgs System Software versions up to 5.0.2 as well as ProDOS 8 and appears to be a well-behaved ProDOS device. I am told it does not conflict with an Apple SCSI card. The drive itself is a 20 megabyte MiniScribe model 8438 in an external box with power supply and an OMTI 20 controller card. I plan to continue to use this drive as my main Apple IIgs hard drive, with the SyQuest as backup or extra storage from time to time.

I thank you for any help you might give.

Norman S. Dafoe
Ottawa, Ontario

The word "instantaneous" is subject to tricky limitations. GS/OS and ProDOS 8 occupy some of the same areas of memory, so the IIgs processor has to do some shuffling to switch operating systems, in addition to any files it has to get from disk. You can speed the process up by increasing the speed of the IIgs (with a **TransWarp GS** *or the newly announced* **Zip** *accelerators for the IIgs) or using a faster disk and interface (a hard disk with the* **RamFast SCSI***, for example), or both.*

I asked Tom Weishaar about **SoftSwitch**, and he clarified that the problem is that **SoftSwitch** won't allow you to suspend a GS/OS application to switch to a ProDOS 8 program, probably due to the memory contingency mentioned above.

We've realized the SyQuest mechanism might be the perfect solution for a user wanting to share a hard disk unit among several systems; the approach would be to buy one drive mechanism and then as many of the cartridges as needed. To "convert" the drive, you would disconnect it from the SCSI controller on one system, connect it to the next, insert the correct cartridge, and boot up the system. By doing this, you lose the convenience of having a dedicated hard disk on each system, but you only have to buy one of the relatively expensive drive mechanisms.

We don't know all the ins and outs of the configuration of the SyQuest for other systems. The IIgs was incredibly friendly in this regard: we just assembled the drive, connected it to an Apple II High-Speed SCSI Interface installed in the IIgs, used Installer on the SCSI Utility disk to add the updated drivers to a 3.5 boot disk, booted the floppy and formatted (with Finder) and partitioned (with Advanced Disk Utility) a cartridge. Then install GS/OS and your other software on the drive and go.

We tried the Macintosh, but Apple's SCSI utilities for the Mac won't recognize the drive. We understand you need a different driver for the SyQuest, but we haven't pursued it. So one task for you will be to determine whether you will need a software driver for your MS-DOS system to deal with the removable-media SCSI device.

About the only variables concerning the SyQuest are the parity and SCSI device jumpers on the drive itself, and device termination. Assuming you can use a mutually agreeable SCSI device ID on the drive mechanism, and the parity setting you use for the IIgs works with your MS-DOS system, you should be in good shape.

The Apple High-Speed SCSI interface is terminated but expects the drive to supply terminator power to the bus; this may also be a consideration in pairing up your MS-DOS system. The **RamFast SCSI** interface has a switch to select whether the card supplies terminator power, but with the **RamFast** you should not try to eject or change the cartridge with the system up and operating; the **RamFast**'s firmware is not currently prepared to deal with removable media, though C.V. Technologies is currently working on a revision to support removeable media.

The Apple Revision C SCSI interface had problems with some SCSI adapters like the OMTI and Adaptec controllers (these controllers are used to make a non-SCSI mechanism act as a SCSI device). We don't have a comprehensive grasp of compatibility issues, but the Apple High-Speed SCSI card was designed in full compliance with the SCSI specification. If the adapter also is in full compliance, things should work. Of course, the best way to find out is to actually try it.—DJD

The New Print Shop

I have a few comments about The New Print Shop which may be of interest to you or your

readers. The new version requires a IIe, IIc, or IIc-Plus with 128K memory (it also runs on the IIgs), runs under ProDOS 8 and is not copy-protected, showing possibly risky but forward thinking on the part of Brøderbund. The program and graphics libraries may thus be installed on hard disk or memory expansion RAM disk from the *Print Shop* main menu, making the program much faster and more convenient in execution. Additional new features include the capability to use more than one graphic (up to 26) on a page, and to use more than one font on a page. Also featured is a more refined preview feature, and the program supports color printing.

The Graphic Editor is no match for the Graphic Editor+ in *The Print Shop Companion*, but does offer the ability to design higher-resolution medium-size graphics as well as the old-style low-res (small) graphics. Diagonals can be drawn using solid-apple and arrow keys. Unfortunately, for ovals and circles and such, you're on your own. If you have the old *Print Shop Companion* you can have the convenience of its (low-resolution) full-featured graphic editor and convert your creations with *The New Print Shop* to compatible disks. When I contacted Brøderbund support they told me that a new *Companion* project had been in the works, but was scrapped. A shame, for that graphic editor was and is a pleasure to work with.

The New Print Shop has a Convert routine for bringing old *Print Shop* graphics, borders, and fonts into the ProDOS format. Don't try to use this routine if you have a *Zip Chip* installed in your system— you can't, it will crash before you get started— although all other features of the program seem to work fine with the *Zip Chip*. If you turn off the chip before entering the Convert routine, there's no problem.

Also from the Convert menu you may list files and directories on ProDOS disks, or list files on a DOS 3.3 disk. The drawback here is that when you convert graphics, the program keeps asking you if you need to format a new data disk, but the List Files options gives you only filenames, not even a hint of how much space is left on a disk. I find myself wishing I could open-apple-escape to *TimeOut FileMaster.*

The program also supports the mouse or joystick. I haven't used the joystick but the mouse is agonizingly slow in movement and you're really better off using the keyboard. I spoke with Brøderbund and they recommended against using the mouse, acknowledging that others have reported a problem with it. They also recommend against using their programs with the *Zip Chip*, but I have found that if configured correctly there's no problem, as I stated previously, and you can still gain substantial speed.

Other features of the program include creation of greeting cards in either the side fold or top fold styles, horizontal or vertical signs and certificates, posters up to ten pages by ten pages, horizontal or vertical banners in several sizes, and customized letterhead. Daily, weekly, monthly, or yearly calendars can be created, and a new Quick Print feature is included which can print graphics and text independently, without going through the usual design process, for use as paste-up in other projects or stand-alone artwork. Quick Print also allows text to be saved as a custom graphic that can be added to the layout of other projects, such as greeting cards. In the Customize Layout menu you can

move, flip, or resize graphics, insert new graphics, or change the style in which a graphic is printed, just as text styles can be modified. New graphics and fonts are, of course, included.

All in all *The New Print Shop* is a leap forward from the old version. It offers greater versatility and if you have the patience you can design graphics with a great amount of detail (useful especially if you like to print large graphics in signs, posters, or banners). The ability to install the program on hard disk or RAM disk is a great boon, as the program itself occupies both sides of a 5.25" disk and with a system like mine (640K, two 5.25 disks drives) it does away with endless disk swapping. Of course, most people in their right minds have 3.5 disks with mega-storage capacity while I plod through the Dark Ages.

Harry W. Barr III
St. Louis, Mo.

*We've been critical in the past of Brøderbund's copy protection, so the revelation that they're trying a release without protection or a customized operating system is welcome news. Besides AppleWorks, The original **Print Shop** probably influenced more purchases of Apple II computers than any other program. We're glad to see the new, improved version.—DJD*

Disk interfaces

I own an Apple IIe (enhanced) with a 3.5 drive and a one megabyte RAMdisk (Apple brand) in slot 5. To copy (load) AppleWorks into the RAM disk from the 3.5 drive takes about 100 seconds. Would the purchase of a hard disk that uses the recent Apple High-Speed SCSI significantly speed up the loading of the RAM disk? Would loading to a *RamWorks III* card in the auxiliary slot (3) work as well as the Apple card I currently have in slot 5?

My 3.5 drive is the AMR variety and the interface card is the *Universal Disk Controller* card from Laser Computer. I also have an older Apple Disk II plugged into the remaining UDC card slot. I have discovered the following: with the Disk II plugged into the first connector (J1 of the UDC) and the AMR 3.5 plugged into the second connector (J2), the AMR 3.5 drive transfer rate is cut by about two thirds (reads and writes take three times longer) and the push button eject on the 3.5 inch drive is inoperative. The 5.25 drive works fine. I have contacted Laser Computer and talked with Toddi Lee. J2 of the UDC does not have a power line to drive the electronic eject of the AMR 3.5 drive, and the reason for the slow data transfer rate is unknown. All the advertising says these problems should not exist but they do. The limitations of this situation are obvious: with the 3.5 in J1 and the 5.25 in J2, I cannot boot up older DOS 3.3 and copy-protected software from the 5.25 disk. With the 3.5 in J2 and the 5.25 in J1, I can boot up from the 5.25 but the read/write rates involving the 3.5 are intolerably slow. Is there a solution? Or is there software that would allow me to boot a copy-protected disk from the 5.25 plugged into J2?

Harlan R. Davis
Bolingbrook, Ill.

Probably the action that's taking the longest time in loading the RAM device from the 3.5 is the time taken to read AppleWorks into the computer's memory before it is written back out to the RAM disk. The Apple SCSI interface

*and a hard disk will help reduce the time it takes to load the Apple card. The fastest solution would be the **RamFast SCSI**; in timings on my IIgs it was close to RAM disk speed. The difference between the **RamFast** and the Apple card is more apparent in ProDOS 8; while GS/OS uses some extra features of the Apple card to speed up access, these features aren't available to the ProDOS 8 disk drive software. The **RamFast** implements speed-up mechanisms in the hardware and firmware on the interface card (hence its higher price) that ProDOS 8 can use, since it doesn't have to know anything special about the card itself. The data just gets swept into memory quicker.*

*I don't happen to know if the **RamWorks** would be that much faster or slower than Apple's card in loading. I'd assume that the time required to write to RAM is not the limiting factor in the startup time for AppleWorks.*

The solution with the UDC is to connect both drives to the same connector, J1. If you daisy chain the 5.25 drive off the back of the 3.5 drive, the 3.5 drive should operate normally. If you boot from a disk in the 3.5 drive, the system starts up with the 3.5 as drive 1 and the 5.25 as drive 2 in the same slot.

If you leave the 3.5 drive empty and put a bootable disk in the 5.25 drive, the UDC will skip the empty drive as you boot and start up from the 5.25 disk. In this case, the UDC reverses the installation order of the drives: the 5.25 becomes drive 1 and the 3.5 becomes drive 2.

If you have the older Disk II drive with a 20-pin connector instead of the D-shaped connector such as the 3.5 drive uses, you can daisy-chain it using an adapter cable. (The newer UDC's that we have require such an adapter as they now lack the 20-pin connector.)—DJD

More on *PFS* conversions

The letter from Donald Lipman ("PFS: update", March 1990, p. 6.13) was very helpful in converting some of my *PFS:File* databases to AppleWorks. However, I found one discrepancy using *PFS: File*, and two omissions:

1. Step I, line 6:
   change (4) to (2)
2. Step III, at the end:
   add the following: "enter open-apple-return when told 'Enter print format'."
3. Step IV, line 5, after "{ASCII} FILE {2}.":
   add "then pick Return after each category (2)."

Also, a more general solution to removing the leading blanks using Beagle Bros' *Ultramacros* is the following:

```
<ba-P>:<adb>
<
  msg "Enter the number of categories":
  $1 = getstr 2:
  msg "":
  A = val $1:
  B = 0:
  oa-<
  oa-1
  begin
    ba-X
    oa-1
    tab
    B = B+1
    if A = B then
```

```
        endmacro
        endif
    rpt
>! PFS:File convert
<ba-X>:<asr>
    <
    onerr stop:
    begin
        $0 = cell
        E = len $0
        if E > 0 then
            right
            right
            del
            del
        endif
        rtn
    rpt
>! clear blanks
```

Charles Jonaitis
Wilmette, Ill.

AppleWorks to *HyperStudio*

I have developed a couple of AppleWorks 3.0 databases (family tree, dinosaurs) and would like to develop hypermedia applications that use this data. I have not yet purchased *Hyper-Studio*, but I am seriously considering doing so for the above mentioned applications. Can I incorporate AppleWorks database information with *HyperStudio*?

Keith P. Hock
Arnold, Mo.

HyperStudio will read *AppleWorks* 3.0 word processor files, but there isn't a mechanism currently to incorporate database files directly into a stack. It sounds like an interesting project, though; a utility to read an *AppleWorks* database file and convert each record to a card in a *HyperStudio* stack.

If you are interested in getting the information into a form *HyperStudio* can read, you can print a database report to a text file to incorporate into text fields within *HyperStudio*. But you would still be left with a lot of editing to break the individual records into data to be stored on a series of distinct cards.–DJD

Two-timing icon

I have experienced a problem with GS/OS 5.0.2 and I wonder if anyone else has seen it. This has happened to me twice now. The second time I was looking for it and I was able to observe it. This occurred on a CMS 60 megabyte hard disk on my IIgs.

After doing some re-arranging of icons in a directory window, I selected "Clean up" from the "Special" pull-down menu, and while the system was in the process of aligning the icons after one particular icon was moved it was duplicated. This created an exact duplicate of this subdirectory with all the same files in it. They act as one subdirectory in that deleting a file from one deletes the file from the other. Also if you delete the subdirectory both of them are deleted.

After this happened I would often get a message on the screen at boot-up saying that the boot directory was bad and the disk should be formatted. I ran Glen Bredon's *Mr.Fixit* program and it seemed to help but the bad directory message still showed up. Finally, I did format the disk, twice.

I have now installed Glen Bredon's *ProSel* for

the IIgs and am running trouble free.

Ramon P. Ratte
Brownsboro, Ala.

That's a new one on us, but then we're one of the few to have seen the disappearing mouse trick on the ROM 03 IIgs (see "Squashed mouse", July 1990, p. 6.46). Anyone else seen this happen?—DJD

Memory use on Apple II

Upper memory (above $D000) is used for both programming languages and the disk interface. Your reply to Eliot Lifeson ("Don't touch that memory!", p. 6.46, July 1990) doesn't seem to offer much hope for alternative languages on the Apple II.

I believe that Apple has been very short-sighted in reserving upper RAM memory for AppleTalk and ProDOS. The vast memory used by these has made the machine almost useless for serious computing.

I recently found that by recoding BASIC.System the needed functions could be reduced to 12 pages (3 kilobytes) of memory. Not all ProDOS commands were coded. However, some were added (TYPE, COPY, DIR, and ONLINE) and I think it is reasonably equivalent to BASIC.System, which uses 40 pages. A recent ad in Nibble by Kitchen Sink Software offers a BASIC.System replacement called *MicroDot* that occupies less than 4 kilobytes. I am not familiar with the product but it seems credible.

Apple should seriously consider recoding ProDOS to reduce memory. Also, AppleTalk should be moved to allow language development in auxiliary bank-switched RAM memory. I suspect it could be combined with ProDOS. Also, use of overlays should be considered. Most IIs carry 128K of memory but due to bad memory layout and inefficient coding it is not effectively used. (Bank-switched RAM is the only reasonable area for languages while AppleTalk can be located anywhere in memory.)

On reserving auxiliary RAM—the /RAM bit map is located from $0C02 to $0C0F of auxiliary memory protecting the auxiliary memory range from $2000 to $FDFF in 512 byte blocks. Poking zero into $0C02 and $0C03 protects the primary double high-res screen. You must also reduce the total_blocks value in $0E29 from 127 to 111 by poking 111 into $0E29 in auxiliary memory before saving any files to /RAM. If your machine language doesn't poke to auxiliary memory you must BRUN a machine code poke using write enable switch $C003 for auxiliary RAM and $C002 to re-enable main RAM.

Observe that the bit map occupies a full two pages! Almost two pages of wasted memory. The area below $2000 in auxiliary memory is largely unused. This is over 3 kilobytes wasted.

The 128K Apple II machines can be used for serious work. ProDOS is functionally as good as disk operating systems on any existing computer, including mainframes. However, program development on these machines will be crippled unless a balanced approach to memory allocation is taken by Apple's software designers.

D. G. Johansen
MICROGRAM Systems
P.O. Box 252
La Honda, Calif. 94020-0252

Don Johansen is author of APEX, a programming environment for Apple II compatible computers with 64K of memory or more. APEX's syntax resembles an enhanced BASIC,

with particular emphasis on graphics commands applicable for program presentation and the user interface. There is also support for use of a command-line interpreter interface. That should verify his interest in expanding the horizons of the Apple II.

I thought I had clarified my reply to Lifeson's letter, but I can't find such a reference, so... to be clear about what ProDOS 8 Technical Note #26 "Polite Use of Auxiliary Memory" means, there is its stated "Rule of Auxiliary Memory":

"If /RAM is enables, all auxiliary memory above location $800 may be used by an application after first removing /RAM as discussed in the ProDOS 8 Technical Reference Manual. /RAM should be reinstalled upon completion.

"If /RAM is not enabled, then auxiliary memory above $800 may be used at the application programmer's discretion, but the areas marked as reserved must be respected."

The first paragraph gives you access to all of the auxiliary memory from $800 to $BFFF if /RAM is found enabled. As I mentioned, most of the auxiliary language card RAM is reserved for system software expansion; Apple probably wants that language card area for the same reason language developers do: it's easier to manage than the main 48K.

The $D100-$DFFF area in bank 2 of the auxiliary language card is reserved for third-party drivers; a protocol was developed by Quark for their (now defunct) IIc hard disk many years ago. The Quark protocol is something Apple may document, but there is at least one major software application whose memory use conflicts with the Quark protocol, rendering it unsafe for most Apple II users. This is the problem with ignoring reserved memory.

The use of 512 bytes for the allocation of the /RAM disk memory is easily explained as a design decision: the "map" is actually the ProDOS volume bit map image, which is defined in ProDOS as requiring at least one block (512 bytes) of the ProDOS device.

As far as making the system smaller: I'm sure some programmers at Apple will read this, and may have some comments. The fact that *MicroDot* ($29.95 from Kitchen Sink Software, Inc., 903 Knebworth Court, Westerville, Ohio, 43081, 614-891-2111) is available and can be licensed for use indicates that Apple doesn't have to provide all the solutions some users may be looking for. I assume Apple has reasons for the current design implementation of BASIC.System; the Apple II technical staff present at the **A2-Central Summer Conference** constantly asked for input on the system software, and I assume they'll be receptive to suggestions. Implementation, of course, often depends on many factors; for example, *MicroDot* uses commands that can only be considered cryptic at the user level ("&.BS" for "save binary file from memory"). *MicroDot* appears to be designed more as a programmer's replacement for BASIC.System than a user's replacement.

The real test will be what features Apple decides to use their reserved memory for. We've been frustrated here with programs that don't work correctly with Apple system software as it is updated, particularly with Apple-Share. We agree programmers should have the opportunity to squeeze as much out of the

machine as possible, but sometimes they squeeze in the wrong places.—DJD

No Slot Clock revisited

Now that ProDOS 1.9 has been released, everyone with a *No Slot Clock* will be wondering when the patch will appear to enable the new ProDOS 8 to work with the *No Slot Clock*. Well, here is a patch to Frank Shirk's patch that appeared in the February 1990 **A2-Central**. Use a backup copy of the *No Slot Clock* disk and type in the following:

```
UNLOCK INSTALL
LOAD INSTALL
157 IF PEEK (X) ◇ 76 AND PEEK (X) ◇ 96 THEN
    X = 20742: R = 10294: IF PEEK (X) ◇ 76 AND
    PEEK (X) ◇ 96 THEN PRINT CHR$(7) "DON'T
    RECOGNIZE PRODOS - UPDATE ABORTED": END:
    REM ProDOS v1.8 and v1.9
158 HOME
SAVE INSTALL
LOCK INSTALL
```

What has changed is the patch to $2836 in version 1.8 of ProDOS—this patch should now be applied to $2865. The other two areas to patch remain the same. (Don't worry, the install program with the above patch handles this.) If you try to patch ProDOS v1.9 with the original patch the *No Slot Clock* software will patch it with no complaints but ProDOS v1.9 will crash unceremoniously. Practice safe hex—always use backups and test everything before hard drive installation of the patched ProDOS v1.9!

Nigel Broder
Herndon, Va.

Wider word processor

Hats off to you for a magnificent service to Apple II users. I am writing to you to let your readers know that I have created a DEV-NAGARI font for the Apple IIgs which can be used with programs like *MultiScribe GS* (now *BeagleWrite GS*). This font can be used to do acceptable word-processing in Sanskrit, Hindi, and other Indian languages using similar script.

There is, though, a small problem regarding high-quality printing using the ImageWriter II. This problem, of course, is bothersome on all word-processors using any font. When one uses the condensed and 50% reduction mode printing, the pixel size the printer uses is so fine that what appears on the screen to be 8 inches wide fills only the left half of the regular paper. Do you have any suggestions as to how one could get this fine quality printing using the condensed and 50% reduction mode and let the software print the whole width of the 8-inch paper? In other words, is there any word processing software for the IIgs which allows one to use a 16-inch paper along with horizontal scrolling.

I use *MultiScribe GS* along with GS/OS. I would like to use only my custom font with the program. I have only that font under the fonts subdirectory but still I get Shaston as the first font on the Fonts menu. Is there any way to get rid of it? Is it possible to use custom fonts in the Find/Replace windows of the GS word processor programs?

Dr. S. S. Datye
Akureyri, Iceland

We don''t recall seeing a IIgs desktop-based word processor that deals with paper widths greater than 8.5 inches. We'd expect that the 50% reduction mode would work as you

described, and that the solution is to create a document twice-the size in both directions as you'd like the final product.

The other solution (if you want to spend the money) might be to go to a printer with finer resolution. Vitesse is working on a printer utility called **Harmonie** *that will support several types of printers, including the 27-pin Epson models and a few Hewlett-Packard printers.*

Shaston 8 appears in your font menu because it is installed in the IIgs ROM. Removing it wouldn't be a good idea even if possible, since the layout of some system text such as menu items are designed to use that font. (There's no way to tell the Font Manager to avoid including it when called by the word processing program.)—DJD

DOS 3.3 to ProDOS

My Apple IIe is DOS 3.3 vintage, and I didn't upgrade to ProDOS 8 at the time. I would like to now. How do I get the appropriate system/utilities disk and manuals that you received when buying an Apple?

Douglas Rea
Plainsboro, N.J.

The only Apple equivalent currently available is the **Apple II System Utilities version 3.1**. *Your authorized Apple dealer should be able to provide them; if not, better contact Apple and let them know about their dealer support. The System Utilities include ProDOS 8 and BASIC.System, and also require a 128K enhanced IIe or compatible system.*

We received Apple II System Disk 3.2 as developers; this is the disk with the System Utilities and ProDOS 8 v1.9 and BASIC.System v1.4.1. We now include tthe latter two files on our monthly disks. System Disk 3.2 should also be available to telecommunications services with the applicable electronic licenses (check with your system operator), and user groups should also be able to license the disk for distribution. The disadvantage to getting the disk through these sources (as opposed to buying the packaged version) is that there is no manual if you require one. The advantage, of course, is that you have the most recent version of the 8-bit system software.—DJD

Feeding the fire

I just thought you'd like to know that you are having a "fire sale" of Apple II items since the Apple II line is dead! This is from Don "Ask the Guru" Lancaster in the September issue of *Computer Shopper* (page 558; column 4, fourth paragraph).

Dennis Swaney
Oroville, Calif.

Well, since that time Addison-Wesley has added the **GS/OS Reference, Volume I**, *and the* **Apple IIgs Toolbox Reference, Volume III**. *Plus our regular pricing for the older books has gone back to normal levels. So if it was a fire sale, Addison-Wesley seems to be up for a Nobel prize for creating matter as a result of combustion <grin>.*

As a long-time Apple II zealot, Don's probably feeling part of the same paranoia as the rest of us.—DJD

Math for Apple II

I am a teacher of mathematics and use Apple II-Plus and IIe computers. Unfortunately, it is difficult to get access to up-to-date programs here in Britain. The Apple 2000 User Group advised

me to contact your publication.

I would be interested in any commercially produced programs for Calculus, Algebra, Trigonometry, and Geometry up to and including university entrance level.

If you know of any mathematics teachers who are using the above type of programs I would be grateful if you could put them in contact with me.

James T. Jackson
Holy Cross High
Muir Street, Hamilton
Glasgow, SCOTLAND ML3 6EY

Size limits

I'd be very thankful if the following two questions were answered:

1) What part of the ProDOS 8 System Software imposes the 32 megabyte limit partition on a hard drive? Can you explain why this limit exists?

2) I can't fully understand why the ProDOS 8 file size limit was reduced from 32 megabytes to 16 megabytes. Explain, please.

Amado Gonzalez
Weehawken, N.J.

The 32 megabyte limit actually is enforced by the ProDOS volume structure, which was a design decision made years ago when the major competitors were MS-DOS and CP/M (both also with 32 megabyte volume size limits). The limitation is caused by the number of bytes allocated for storing the size of the volume in 512-byte blocks; two bytes were allocated for the size, which creates a limit of 32 megabytes (actually just 512 bytes short; the largest value that will fit in two bytes is $FFFF, which is one block short of 32 megabytes). The ProDOS FST that GS/OS currently uses for communicating with most disk devices also has this limit in volume size, though GS/OS itself can handle a volume up to four gigabytes in size with other hypothetical FSTs.

The ProDOS 8 file size was always limited to 16 megabytes; it's less than the volume size because the file size is tracked in bytes rather than blocks, and three bytes are allocated in the file entry table of a ProDOS volume for the file size. 16 megabytes is the largest file size that can be represented by those three bytes. GS/OS has no "native" file system, and is designed to access files up to 4 gigabytes in size if the file system supports them (again, the ProDOS FST is not intended to support files larger than 16 megabytes).—DJD

Descriptor error

What is a System Error $0046, "Unable to load descriptors"? It happened when I was booting from my hard disk as usual. To fix, I had to reinstall GS/OS and ProSel.

L. and J. Bould
Monambel, Vic.

After installing GS/OS, in the "icons" folder there are two files named FTYPE.MAIN and FTYPE.AUX. These files contain the file descriptors, Apple's official names for the various GS/OS filetypes. If these files (or the Icon folder that contains them) are absent or damaged so that they cannot be loaded, you'll see the error you cited. The cure, as you discovered, is to re-install GS/OS to insure the Icons folder is

intact. If the error recurs frequently, it's time to check the hard disk to see if there's a bad block cropping up in the Icons folder.—DJD
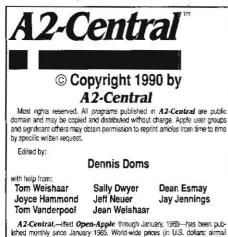
Not encouraged

I just got the September issue of **A2-Central** and I'm angry.

I just cannot understand why anyone would be encouraged by what the Apple people said. It sounds like the same old stalling line we've been hearing. Maybe you all have more information on the inside that you can't let out, but from what I read in **A2-Central** and have read elsewhere, I feel that Apple is pulling the same stunts (i.e., shoveling manure to see if anything grows).

I might be slightly more assured if I had bought a IIgs. Even then, many of the changes seem to be token or appeasement. For those who decided not to mortgage all the houses on their block just to get a computer, and have something older than the IIgs, I guess Apple believes that nothing is too good for us so that's what they are giving us.

To be fair, I have to admit it might be nice to have a IIgs, but I don't do much music or graphics and I'm not worried about playing games with super neato sounds and stuff. I just want to do a little number, word, and data crunching—most of which I can do with AppleWorks (and AppleWorks even works on a II Plus or Franklin 1000). I would be a lot more interested in the capabilities of the IIgs if it were about one-third the cost. But then, if I desperately wanted a computer that could do music and

neat color graphics with a graphics interface, I could probably pick up a used Commodore 64 pretty cheap and get GEOS for it.

Since I'm being angry...one more thought: have you considered changing the little subtitle to "A journal and exchange of Apple IIgs discoveries"? It would help you play even more into the hands of Apple.

Ross McIntosh
Boulder, Colo.

*I agree that Apple hasn't done its part in insuring that good serious applications exist for the Apple II or IIgs. Ask Barney Stone about the kind of comarketing support he gets for **DB Master** and I'm sure he'll agree. Many people seem to be 100% satisfied with AppleWorks with some enhancements such as **TimeOut**, and AppleWorks (as you mention) can be fitted to run on older systems (but it runs better on the IIe and IIc and, we think, on the IIgs). The only cure I can see to alleviate this and to generate the kinds of applications that you seem to be interested in is to convince a company that they will make money if they write them. This doesn't seem to be happening with any regularity except for Beagle Bros products and a variety of curriculum-related educational software. Part of that is due to the success of AppleWorks; part of it is due to Apple's marketing tactics severely handicapping developers who want to seek captital for Apple II projects ("What? You want money to write a IIgs database program? We can't invest in that. If it were a Mac program..."). If you consider taking Apple to task for the latter problem "playing into their hands," I'm very puzzled as to what direction we could take that would help (writing the database ourselves is not an option; it's enough of a project putting out a monthly newsletter).*

This is said in a spirit of trying to point out that to a large extent we have met the enemy, and they is us. As long as Apple II users expect things to happen out of the good graces of businessmen, the situation will not improve. Businesses are intended to make money, and apparently Apple had not been convinced in the past that (a) the Apple II is a source of revenue to be cultivated rather than pruned, and (b) that not supporting the Apple II is costly to them. Ralph Russo did manage to convince me that, although Apple has not acted accordingly yet, that they do realize that the Apple II is a share of their market that could come back to haunt them in terms of disenfranchised users. Mr. Russo also seems to think the Apple II is a money-making proposition if it could be marketed properly. I think that's cause for hope (or, I should say, cautious optimism).

*The types of items displayed at the **A2-Central Summer Conference** indicated to me that there are Great Things happening on the technical side at Apple. We'll know better if Apple Marketing has squashed the life out of them later this year as Apple' sales strategy unfolds.*

As far as support of the 8-bit Apple II is concerned: the most recent product introductions work on a IIe, and even some incredible third party products such as InWords optical character recognition software will work on the older Apple II models. I reiterate this to demonstrate that this market is not "dead".

*Holding the IIgs against Apple is exactly the reverse of the problem. Apple is a hardware manufacturer; they make money by selling **new** CPU's and peripherals. Apple II users who*

insist that they aren't going to buy a new computer until Apple gives the 128K Apple II the same capabilities as the IIgs are going to lose, just as users of the Atari 400/800, Commodore 64, CP/M machines, and the 8-bit Radio Shack machines have seen themselves crowded out of the mainstream of the market. The market is moving to "bigger" CPUs. What is unusual is that Apple did supply a nearly 100% compatible upgrade path in the IIgs. They just forgot to try and sell it.—DJD

Give us our IIgs

I'm a teacher in a French college, and last week I was at a conference where new audiovisual tools were presented to math teachers.

At home, for private use, I have a IIgs and I thought it could be interesting for other teachers to see HyperStudio working. I said I'd like to make a very short presentation.

Our lecturer thought it was a good idea, my proposal was accepted, and I was given a few minutes to do so...

Two hours later all attendees were still around my computer. Nobody knew about this software, nobody knew about this computer, nobody had ever heard their names, nobody thought it could exist: Apple France had forgotten to tell teachers they sell a computer named the IIgs. They sell the Mac Plus, Mac SE, or Mac II,...and so on...

But everybody applauded at the end of my show: yes, it's the very computer we needed they said. HyperStudio lived up to our dreams...

In our schools we don't need Macs, they are too big and too expensive, so we purchase XT or AT clones....and we don't have HyperStudio. Here in France a IIgs is not too expensive. We get one with 1.2 megabytes of RAM and software, and a good PC XT is sold at a similar price. Apple dealers only sell Macs, and discourage the poor guy who wants to get a IIgs. I saw in an Apple computer shop a bill on which an Apple dealer had written: "The IIgs is not a good choice...". Apple IIe or IIc owners who want a new computer sometimes purchase a Mac but much more often select a PC clone.

Fuzeau Rene
Chateaunevf, France

That's been our experience, too, both locally and based on our mail. Apple seems to think the answer is less expensive Macs. Readers seem to feel that the choices allowed by MS-DOS machines are more akin to the flexibility of the Apple II than the Mac can ever be.

The rumored new Macs may let Apple survive, but there's no question that Apple has lost much of its customer base to competitors by trying to cram the Macintosh down their throats: by limiting resources committed to the Apple II both in terms of reinvestment of income and in terms of committment of resources (though the technicians working on the Apple II do seem to be unusually motivated), by artifically limiting the Apple II market and thereby constraining the available software base, and by deriding the Apple II technology and user base continually in Apple's own publications. Then Apple complains that it has to develop cheaper Macs to survive because the Apple II isn't selling. As one reader put it, it's like the criminal who shot his parents and then asked for leniency in consideration of the fact that he was now an orphan.—DJD