

A journal and exchange of Apple II discoveries

Imagination rules the world

By Jay Jennings

In the overall scheme of things, there's nothing more important than a good computer game. Oh sure, world peace is right up there, but a really good computer game could probably accomplish that anyway.

Get a group of computer users together (especially those who've been around since the early 80's) and bring up old computer games. One after another they'll start reeling off the names of their favorites. Games like *Sneakers*, *Frogger*, *Spare Change*, and *Drol*. Mention one that's slipped their minds and they'll exclaim, "Yeah! That was so cool!" You can **see** their eyes light up.

Now, get a bunch of computer users together and bring up the topic of spreadsheets. See if you can click the button on your stop-watch before the snores start. Business programs are boring. It's the game market that keeps the blood pumping in a computer system.

Not everybody is a hardcore gaming addict, but most people have at least one game sitting around that they pull out when they get tired of doing "real" work on their computer. *Lode Runner*, *Wizardry*, *Alien Rain*, *Raster Blaster*. Each of those games can be blamed for thousands of hours of non-productive time. But you know what they say, "All work and no play..."

"I wonder whatever happened to (fill in the blank)?" That question pops up time after time. The blank will usually contain a name like Bill Budge, Nasir Gebelli, or Olaf Lubeck. Those people and more wrote hit games on the Apple II, made thousands (if not hundreds of thousands) of dollars, and have disappeared. Are they still in the computer industry? Are they retired and living in Pago Pago? Did they burn out and become janitors? Nobody seemed to know, so I thought it might be kind of fun to see if I could track any of them down. I've heard that Bill Budge spends all his time windsurfing in California, and Nasir Gebelli is currently writing Nintendo games, but those are all rumors. I wanted some facts.

The first thing to do was to pare the huge list of missing authors down to a manageable 3 or 4 people. The first people on my list were Dan and Mike Zeller, authors of *Spare Change*. That game was published by Broderbund, so my first call was to that company. After getting lost in their voice-mail system, I finally found someone who promised to find some information — even though he'd never heard of the game (it was discontinued in 1985). I'm still waiting to hear back from him.

Next stop was Sierra Online. This time I was looking for Olaf Lubeck, the programmer who, in 1981, created *Gobbler*, a *Pac-Man* clone for the Apple II. A nice lady in Public Relations took my number and said she'd find out where Olaf was and get back to me. She did call me back, but had absolutely no clue where to find him. She said nobody has talked to him for "years and years."

I decided to try for Bill Budge, one of the "bigger" names on the list. Surely people would know where he was. No luck. How about Silas Warner, author of *Castle Wolfenstein*? Nope, another dead end.

I've come to the conclusion that if you create a hit game for the Apple II it's required that you drop out of sight. In fact, I wouldn't be surprised if there's a hit squad that snuffs you out whether you want to disappear or not. Maybe we need to put their pictures on the back of milk cartons (or joystick boxes?).

For a good history of the Apple II gaming industry (at least from the perspective of Sierra Online) and interesting anecdotes on several old-time Apple II authors, read the book *"Hackers"* by Steven Levy. The third part of the book is called "Game Hackers" and covers much of the birth of the Apple II gaming world.

What games do we have to look forward to in the Apple II world? Coming soon will be *Spirit of Excalibur* from Virgin/Mas-tertronic. This is the only commercial Apple IIgs game that's under development at this time — as far as we can tell. It's possible that programmers across the Atlantic are up to something. France's Tool-box has recently released *Gate* and *SpaceFox* (two earlier games from them are *Bouncing Bluster II* and *Space Shark*). MCX in California has released *Hover Blade*, by Shiraz Akmal. There are also a few freelance programmers around the country working on games.

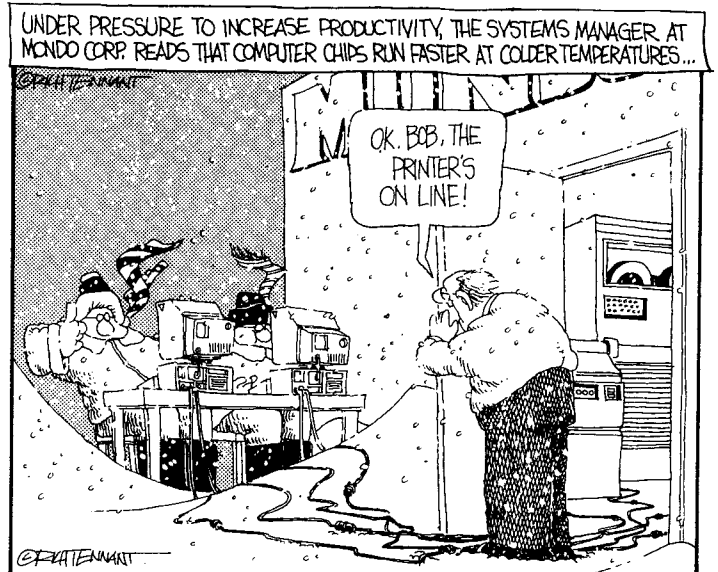
With the shelves in the software stores filled to the brim with IBM and Nintendo games, it's getting increasingly difficult to find a source for Apple II games. Besides the normal mail-order outlets, there are a couple of other sources that you might not be aware of.

Most people don't think there are 50 different Apple II games in existence anymore; the Big Red Computer Club lays that thought to rest. They alone are an outlet for over 100 Apple II games from publishers like Electronic Arts, Mindscape, Taito, and Interplay. At least half of the titles are IIgs specific. BRCC has quite possibly become the largest distributor of Apple II games.

Some of the titles carried by BRCC are closeouts. Once their stock is gone you're out of luck. The other titles are of an unlimited supply, but to save expenses you don't get a fancy box. You do get an original disk and documentation, however.

The BRCC prices run from \$6 (for a lot of the 8-bit titles) up to \$25 (for recently released IIgs games). They also have several package deals available. For example, twenty-seven Apple IIe games from Electronic Arts can be had for \$150, fourteen Apple IIgs games from EA can be had for \$125.

You don't have to join the Big Red Computer Club in order to purchase from them, but it helps. Members get a discount (anywhere



from \$2 to \$6 on single games, up to \$30 on package prices) on games, a monthly newsletter, tech support, and more. A membership costs \$19.95. Buy four games from them and it'll pay for itself. Any more than four a year and you really start saving. Call BRCC at 402-379-4680 for more information on memberships and their products. Or write to them at 423 Norfolk Avenue, Norfolk Neb 68701.

Another source that's sometimes overlooked is Softdisk. With a version for both the 8- and 16-bit Apple II, back issues (and future issues, for that matter) of *Softdisk* are a great place to find games. Not every issue holds a game, but quite a few do. Some of the best from the past include *Dark Designs*, *Catacombs*, *ZappaRoids*, *The Legend of StarAxe*, and *Crossword Machine*. As you can tell from the names, the games span all categories, from arcade action to brain games. *The Legend of StarAxe* by Tom Hall and Lane Roath is my personal favorite. Where else can you find a game with flying '57 Chevys and Space Swine? You can call Softdisk at 800-831-2694 and order a catalog of back issues.

On one hand the future of the Apple II gaming world isn't very bright. Most of the big-time software publishers have given up on the Apple II. You won't see Lord British (Origin Systems) poking his nose into our world anymore. The Williams family (Sierra Online) has gone on to the high-end IBM and color Mac markets. And Mr. Hawkins (EA) hasn't looked our way for quite a while.

The future isn't all dark, however. Just because the "professionals" have gone to other markets doesn't mean that you won't see new games on the Apple II. With more demand for games and fewer companies supplying them, shareware and freeware authors are starting to pick up on the fact that they're needed now more than ever.

Some of the best games available outside of commercial channels aren't shareware and aren't freeware. In a break from the usual tradition, Ken Franklin of Clarksville, Tennessee, invented ReliefWare. If you like the game, send Ken Franklin the amount of money asked for. He then turns it over to local charities that help the homeless. It might be this unique twist that's made Ken Franklin's games do so well, raising almost \$6000 for homeless relief efforts. Of course, the fact that his games are fun and addicting don't hurt anything, either.

One-Arm Battle was Franklin's first shareware offering (he's started treating it as ReliefWare). One of the nice things about this game was the fact that it allowed more than one player to compete. One of the bad things is that it decreased productivity wherever people started playing it.

Plunder, the first "official" ReliefWare game, came next, a "find the treasure" guessing game, and then *Milestones 2000*, based on the popular French card game, *Mille Bournes*. The many different sounds (and the good graphics) made *Milestones 2000* an instant hit in the shareware arena. Franklin is working on updates to the three ReliefWare games, and recently hinted in a message on GEnie that a fourth addition may be coming soon.

Some gamers don't think that graphics make the game. And Infocom proved that if the game is good enough, graphics just don't matter.

"You're standing in the middle of a dimly lit cavern.

Leaning against the north wall is a suit of armor that appears big enough to fit a hill giant. The light from your torch shows you enough to know the armor is empty. It also reveals a 12-foot tathry coiled around the left leg of the armor."

Eamon games are classic text adventures in the tradition of the *Zork* series. The *Eamon* system was created by Donald Brown and has been around for over ten years. One key to its longevity is that *Eamon* isn't just a game, it's also a game authoring system. All the tools to create your own games are just a download away.

Once widely popular among 8-bit DOS 3.3 users, the *Eamon* adventures are being given a facelift to make them more attractive to the newer members of the Apple II family. Besides being converted to ProDOS they're also being converted to use 80-column displays. This work is being done by the members of the Eamon Adventurer's Guild.

With over 200 *Eamon* games available, it's hard to know where to start. Since anybody can create an adventure, it's possible to snag a badly created game right off the bat. That's turned a lot of folks off. But the Eamon Adventurer's Guild has put together a ratings system

to help people locate the cream of the crop. And the A2 RoundTable on GEnie asked Tom Zuchowski of the Eamon Adventurer's Guild to create a set of the best Eamon adventures available. The result, *The Best of Eamon*, is available for downloading from GEnie's A2 RoundTable Library.

If you're a beginning adventure game player, you might want to start with the *Eamon Starter Kit* (also available on GEnie). This set includes all the information needed on getting into the Eamon system. It also includes several beginner-level adventures. For more information contact the Eamon Adventurer's Guild at 7625 Hawkhaven Drive, Clemmons, N.C. 27012. Or phone, (919) 766-7490. For information on subscribing to GEnie, call (800) 638-9636.

For those people who like their adventures a little more graphic, there's *Explorer*, an adventure game system that comes complete with a graphics adventure editor. This allows you to create your own games with monsters, treasures, and beautiful damsels in distress. A character editor allows you to create your own hero with different attributes like strength, wisdom, etc. You can then upload your new adventures and characters to bulletin boards and let other people try them out.

The game uses a map-based system like the Apple II *Ultima* series, and requires an Apple IIgs. Extra adventures are already appearing on the national online services.

Most games take months or years to come to market, but Brian Greenstone and Dave Triplett (Pangea Software) showed the Apple II world what can be accomplished in 24 hours. *Grackel* was the first 24-hour game to come down the pike. It wasn't very impressive, but it **had** been created in 24 hours. What did one expect?

Well, they must have been using that as a training ground because after that, the 24-hour games got better and better. *Senseless Violence I: Survival of the Fetus* was a *Frogger*-like game with a baby crawling along in place of a hopping frog. *Senseless Violence II: Use it and Die* was an anti-drug game (maybe created to appease some of the people offended by the theme in the first program).

Other offerings from Pangea Software included *Quadronome*, *Orbzone*, and *CopyKillers*. These were all 24-hour games. And they were all fun. The reason Brian and Dave were able to crank out the games so fast stemmed from their use of tools. One of the most time-consuming areas in game design is the development of your tools. You need shape editors, map editors, etc. Once those are done, you can use them from one project to the next.

When 24-hour games became passe', Pangea Software created *Cosmocade*, a set of two different arcade games (it's so large that it takes up two 3.5 disks). The game was to be a commercial venture, but when a publisher couldn't be found it was released shareware. The commercial game *Xenocide* was also created by Pangea Software, who have now moved on to the IBM gaming world.

Other arcade games of note include *As the Link Turns*, by Parik Rao, a shoot-em-up where evil Macintoshes (are there any other kind?) are the target of your hostilities. Several Tetris clones (or Tetris-like games) have appeared. *Columns* for the 8-bit Apple II and *Dr. Mario* for the Apple IIgs are the two best (although some people prefer the IIgs version of *Columns*). There's even a Tetris-clone for the IIgs that's an NDA. Called *Quadomino*, it allows you to get a game fix in while doing more "productive" work.

Arcade games appeared when computers appeared. Wargames have been around for as long as war has (which is a fairly long time). *Struggle for Guadalcanal* by Jeffrey Roy and Tim Long is an 8-bit wargame set in the fall of 1942. The objective of the game is to take Guadalcanal Island from the Japanese and hold it. The game is free-ware and supports two players, or one person against the computer.

The Halls of Montezuma, published by SSI, is a commercial game, but there are dozens of scenarios floating around on the online services. When you get done playing what came in the box, pull down a few more battles and go to work.

When I started working on this article I posted messages on America Online and GEnie asking for feedback about the best games for the Apple II. I also faxed the questions to several of the "big-wigs" in the Apple II industry. I got a lot of responses which are tabulated (in a

very unscientific manner) here.

The first question was: if you were stuck on a desert island with an Apple II, which one game would you like to have with you? I don't know if it was the phrase "desert island" jump-starting people's brains, but the game "*Pirates!*", published by MicroProse, came in number one. Close behind came *Bard's Tale III*, *Battle Chess*, and *Reach for the Stars*.

The second question asked: what three games should be inducted into the mythical Apple II Games Hall of Fame? We had a couple clear-cut winners in this category. At the top of the list was *Arkanoïd II*. In second place, losing out by only two votes, was *The Immortal* and in a tie for third place we had *Wizardry*, *Task Force*, and *Pirates*. If I had been looking for a fourth place winner I'd have been in trouble. Eleven games tied for fourth place.

The last question was about non-commercial games: what's the best freeware, public domain, or shareware game out right now? *Milestones 2000* by Ken Franklin came in first place, with *Star Trek GS* by Joe Jaworski and *Senseless Violence: Survival of the Fetus* by Pangea Software tying for second. In third place we have *Cosmocade*, also by Pangea Software (the music in *Cosmocade* is by Gene Koh).

Since I'm not an official games guru myself (although I can win *Arkanoïd II* everytime I sit down in front of it <ahem>) I relied on information from several friends of mine. Thanks to Eric Mueller, Dean Esmay, Nate Trost, and Benjamin Brockmann. And thanks to Dennis Doms and Tom Weishaar who dug out scads of old games for me to play with during the course of writing this article. Finally, thanks to the shareware, PD, and freeware authors. It's up to you to keep us playing in the Apple II world.

P.S. - It was suggested that I put in a few sentences to encourage people to pay their shareware fees. I'm opposed to that for the same reason that I didn't include reminders for you to keep breathing. It's something that everybody knows. And everybody knows to pay their shareware fees. Whether you do or not is beside the point, and "preaching" to those slimy freeloaders who don't pay isn't going to help anyway.

Miscellanea

A news report in USA Today on Wednesday, October 23, 1991 reports that Apple Computer CEO, John Sculley donated the historic farmhouse shown in Andrew Wyeth's 1948 painting, *Christina's World* to the Farnsworth Museum in Rockland, Maine. The article goes on to state that the museum's director, Christopher Crosman found him to be approachable, easy-going, and unpretentious when asked to make this donation. Hmmm.....has anyone actually asked Mr. Sculley to allocate money for Apple II marketing?

Ridding themselves of many relationships and forming one rather large one seems to have paid off for Apple, Inc. in their fourth fiscal quarter. They report earnings of \$81.2 million. So it seems that by cutting their workforce by approximately 900 and slashing top level salaries by 15%, they were able to drop their operating expenses by 6.1% as compared to the same period last year. Additionally the litigation between Apple and Apple Corps Ltd has been settled with an agreement for cooperation in future trademark registrations along with the sum of \$26.5 million which was paid by Apple to Apple Corps in October.

A telephone call to Jerry Cline of Insync Software confirmed that ProTERM 3.0 should be shipping just about now. Although we haven't seen a copy here at the office yet, I read a very favorable review (of the beta version) in *AppleGram*, the monthly journal of the Apple Corps of Dallas, written by Fred Sheffler. (We really do read the user group newsletters that come through our door.)

The *ProTERM* brochure boasts a host of new and expanded features. Of keen interest to most telecommunicators is the full support of Zmodem transfers. Other protocol enhancements include auto-start for Kermit (and Zmodem), Z modem resume/CRC-32, "on-the-fly" Binary II encoding and Xmodem/Ymodem 4K. File transfers also support both file and batch modes.

There is a new user interface that features windows, pull-down and pop-up menus, hot keys and optional mouse support. The new *ProTERM* editor (which was pretty powerful in past versions) now sup-

ports selectable text width, definable tab stops, and special "filters" for case, paragraph and reply conversion.

Previously, *ProTERM* system entries could be individualized for baud, emulation, and duplex. Costs-per-minute and hour, answer-back, defaults for sending text, send prompts, and space deletion are but a few of the adjustable parameters now available. There is a print preview that allows seeing exactly how a document will look if formatted with dot commands. One of the new emulations includes an ANSI-BBS which allows display of ANSI graphics on PC boards.

The manual for the new *ProTERM* sounds like a vast improvement over the old. It's promised to be a very detailed, 300-some-odd-page, indexed volume. Quick-reference cards as well as 5.25" and 3.5" disks are included in the package. Cline indicated that although this package is very sophisticated, every attempt was made to make *ProTERM 3.0* (and the manual) easy and accessible to the novice telecommunicator. For additional information write InSync Software, 3035 East Topaz Circle, Phoenix, Ariz. 85028-4423

The Alliance International Inc. (the AII) is a newly formed legal entity formed for the express purpose of promoting the Apple II computer in home, business, and education. They intend to take a positive, pro-active approach through national and international advertising in order to increase public awareness. To find out more write to The Alliance International, Inc. P.O. Box 20756 Louisville, Ky 40250.

The online censorship controversy is ongoing (see "The electronic frontier", October 1991, pp. 7.65-7.67). On October 30, a federal judge ruled that *Compuserve* could not be held accountable for possibly libelous content published electronically in one of its forums. The judge applied the "common carrier" model to *Compuserve* in making the decision. Meanwhile, *Prodigy*, which embraces the publication model, has been at the center of a controversy regarding messages concerning the Holocaust. *Prodigy*, which admits to deleting messages it doesn't consider appropriate, was attacked by the Anti-Defamation League of B'nai B'rith for allowing messages calling the Holocaust a hoax.

Seven Hills Update

An upgrade to GraphicWriter III is now available. Although we didn't get the new version 1.1 in enough time to do an intensive review this month, it does look like it was worth the wait. The overall stability has improved and major bugs have been fixed. The GW.ImageWriter custom printer driver has been eliminated as well as the "Choose Printer" option. You can now choose your printer via Apple's Control Panel. There's a new Teach Translator that allows for importing and exporting of formatted "Teach" files. The bugs in both the Universal Text and the *MouseWrite* text translator have been fixed. Additionally, the update disk contains some very useful and informative files. Free upgrades are available to registered owners from Seven Hills (2310 Oxford Road Tallahassee, Fla 32304, phone (904) 575-0566). An alternative would be to contact your local user group's Seven Hills Partner.

The update of Font Factory GS touts a whole new look. It retains all the old capabilities and adds some new features as well. The menu bar options change in relationship to what you are doing. New features include the ability to: smooth an entire font at once; create stylized (italic, bold, etc.) fonts; and print font samples. Upgrade information is identical to that of *GraphicWriter III*, see above.

Two other products that Seven Hills has in the nearby wings are *Formulate* and *ShoeBox*. *Formulate* is a math editor that produces mathematical symbols. This will be of special interest to teachers and students of science and math in that it can be used to produce worksheets, tests and papers. Printing can be done directly or the formulas can be exported to other IIGs programs. *ShoeBox* will be Seven Hills' first *HyperCard II* application. It is a household manager that will organize family-record keeping tasks. Additionally, it includes a family messaging system that includes mail, notepads, to do lists and calendars.

Seven Hills has recently ventured into some sticky business. In addition to their IIGs specific software, they are now suppliers of laser printer labels. The labels are available in address and 3.5 sizes. —edr



Ask (or tell) Uncle DOS

In last month's issue, the use of double-sized fonts was mentioned as a method of improving print quality ("Printer quality and 5.0.x"). It should be remembered that although we refer to "double-sized" as if Font.24 is exactly twice the size of Font.12, this isn't necessarily the case.

Also last month, a reader asked how to activate the 80-column display from machine language ("80/40-column switching"). The answer given is correct for a ProDOS system program, but assumes another program that may be using the output vector (like BASIC.System) is not loaded. Grabbing the output (or input) vector when another program may be using it is not nice, and the program may object vigorously or ignore you.

If BASIC.System is loaded, the correct solution is to put the output vector for the 80-column display (\$C300) into the output vector pointer in BASIC.System's global page at \$BE30 (low order byte, or "\$00" in this case) and \$BE31 (high order byte, or "\$C3"). When the first character is output to the screen, BASIC.System will initialize the firmware and update the vector for continued use.

If some other program "owns" the output vector, you'll have to negotiate with the specific program. The means will vary from program to program, so we don't have a "generalized" procedure...but stay tuned.

On the other side of the coin, there are those that want to perform input without BASIC.System parsing the input string for its commands (so that typing "Catherina" doesn't cause BASIC.System to CAtalog a directory named "HERINA". This is a bit trickier).

BASIC.System absolutely wants to hold onto the I/O locations (that's the reason BASIC.System is harder to disconnect than DOS 3.3's command interpreter). It intercepts all input and parses it to see if it's a valid BASIC.System command before feeding it to GETLN. If it is a ProDOS BASIC.System command, it's executed; otherwise, GETLN gets it.

The code that does this occupies \$9ABA-9B72 in BASIC.System 1.4.1 (it may move around a bit from version to version). There is a STATE register in the BASIC.System global page (BE42) that indicates whether the system is in deferred mode. However, setting it to non-zero during GETLN won't help. BASIC.System still "owns" the I/O locations used by COUT and KEYIN and will swap in its parser as each character is sent.

Assuming your input routine is short and that the "host" program isn't going to try to use the vectors during an interrupt, you can briefly grab control. The solution is to steal the zero-page character I/O vectors while your input

routine is running (and only then) and restore them afterward. This takes BASIC.System out of the loop so it can't intercept the input. Sample code follows:

```
PROMPT GEQU $0033 GETLN prompt
CSW GEQU $0036 COUT vector
KSW GEQU $0038 KEYI vector
GETLN GEQU $FD6A get input line
ORG $0300

OURGL START
0000 08 PHP save registers
0001 48 PHA (overly cautious?)
0002 8A TXA
0003 48 PHA
0004 98 TYA
0005 48 PHA
0006 A2 03 LDY #$03
0008 B5 36 XVECS LDA $0036,X save old vectors
000A 9D 33 00 STA SAVE0,X
000D BD 37 00 LDA VECS,X put new ones
0010 95 36 STA $0036,X
0012 CA DEX
0013 10 F3 BPL XVECS
0015 MSB CN for prompt char
0015 A5 33 LDA PROMPT save old prompt
0017 48 PHA
0018 A9 A9 LDA #")" new prompt
001A 85 33 STA PROMPT
001C 20 6A FD JSR GETLN
001F 68 PLA restore prompt
0020 85 33 STA PROMPT
0022 A2 03 LDY #03 restore vectors
0024 BD 33 00 RVECS LDA SAVE0,X
0027 95 36 STA $0036,X
0029 CA DEX
002A 10 F8 BPL RVECS
002C 68 PLA restore registers
002D A8 TAY
002E 68 PLA
002F AA TAX
0030 68 PLA
0031 28 PIP
0032 60 RTS
0033 00 00 00 00 SAVE0 DS 4
0037 F0 FD 1B FD VECS DC A2'$FD0,$FD1B'
END
```

This coding is very conservative about saving states; saving and restoring the zero page values is essential, but saving the register status may not be. I tried this routine in immediate mode with a "CAT" command followed by a "LIST" command and it seems to keep BASIC.System away from your input.

Also, picking the I/O vectors is tricky. This routine used the 40-column vectors. Another option would be to move the vectors out of the BASIC.System global page (the table of output vectors begins at \$BE10, input at \$BE20). You'd want to make sure these pointed to the ROM space (\$F800-\$FFFF or \$Cxxx space); otherwise, BASIC.System may be doing file I/O.—DJJ

Correction little

I was reading the October issue of **A2-Central** and have a little correction to add to your reply to the "Binary II and AppleWorks GS" letter.

There is a renaming convention built into Binary II. An application that builds a Binary II file is responsible for putting the filename (stored in the Binary II header at offset +023) in ProDOS 8 format. If the "native" filename is to be retained (and the string in the "filename"

field doesn't refer to a partial pathname), then it should be placed at offset +039. (I had Gary Little add the native/filename field to the Binary II files under DOS 3.3.)

If the application that builds the Binary II application runs under GS/OS, then it should be able to find the file's native file system in the file_sys_id parameter returned by GetDirEntry. With that information, it should be able to set the "OS Type" field in the Binary II header (offset +121) to the correct value (see the table in the Apple II File Type Note \$EO/\$8000, Binary II File.) The application that unpacks the Binary II file should use the native filename if the volume it's unpacking to uses that native file system. Under ProDOS 8, it isn't worth the trouble to try to find out the native file system because ProDOS 8 always uses a ProDOS 8 compatible name when dealing with files on AppleShare volumes.

Jim Luther
Cupertino, Calif.

Kudos and kquestions

Just received *HyperCard IIgs* and my first copy of **Script-Central** and I can't begin to tell you how great I feel each one is.

I do have a question about printing. While going through **Script-Central** I often feel the need to print out one of your card fields so that I can have the dialog in front of me while experimenting with one or another of your scripts, tricks, or whatever in one of my own stacks. How can I print (condensed) an entire field? I have reviewed the manuals but they don't give me the "simple" solution. Also the 'Page Setup' menu item won't produce condensed printing.

W. Ogden
Walnut Creek, Calif.

HyperCard IIgs's printing abilities are basically designed to print cards, not individual fields.

The workaround is to write your own basic printing routines in the same manner as with Applesoft. **HyperCard IIgs's** "Scripter's Tools" (accessible from the Home stack; click on the "Toolset" button at the bottom of the introductory screen and then select "Scripter's Tools" on the new screen) provide XCMDs and XFCNs that can be installed into a stack to allow sending text directly to a slot.

To set things up, you'll install the XCMDs "SlotClose" and "SlotWrite" and the XFCN "SlotOpen" into your (previously created) stack. Starting with the XFCN, click the "XFCNs" button on the left of the "Scripter's Tools" screen and scroll the items in the window on the right (if necessary) until you see the "SlotOpen" item. Click on it, and you'll be taken to a screen describing the command. Now's a good time to read the "Instructions for use" at the bottom of this card and make any notes you feel you'll need to use the command later. Then click the "Install" icon in the upper right corner of the screen; you'll be prompted to select the stack you want to install the command into, and told if the installation was successful. Then click the bent "return" arrow to go back to the "Scripter's Tools" card; install the two XCMDs in the same manner.

There are a few ways to handle the printing function. We're going to use a simple example of a card with a (background) field named

"ourField" whose contents we want printed in condensed type on an ImageWriter II when we click a button called "Print ourField". Assuming we don't want to be real tricky about this, we're going to hard code the information into the "Print ourField" button:

```
on mouseUp
  global slotID - save this in case of abort
  - first, open printer slot ("PR#1") and check status
  put slotOpen(1) into slotID - printer slot is 1
  if first word of slotID is "ERROR" then
    answer "slotOpen() returned" && quote & slotID &-
    quote &&".
    exit mouseUp - didn't open slot
  end if
  - "PRINT" printer interface control string
  - set to 136 (8*17) chars/line
  slotWrite slotID, numToChar(9) & "136N"
  - "PRINT" IIWII condensed print control codes (Esc Q)
  - set to 17 chars/inch
  slotWrite slotID, numToChar(27) & "Q"
  - "PRINT" text in ourField
  repeat with i = 1 to number of lines in field-
  ourField
    slotWrite slotID, line i of field ourField
    slotWrite slotID, numToChar(10) - line feed
  end repeat
  - "PRINT" codes to reset printer (Esc c)
  slotWrite slotID, numToChar(27) & "c"
  - "PRINT" form feed (^L, eject page)
  slotWrite slotID, numToChar(12) & numToChar(13)
  - all done, close printer slot ("PR#0")
  slotClose slotID
end mouseUp
```

A glitch in this system is that slotOpen() doesn't like printing to AppleTalk where we have our server and printers cohabitating. Instead of slotID containing an identification code for the slot, it returns an error message: "ERROR Block devices not allowed". So we added the "if-then" check after slotOpen() to trap any error and display it in a dialog.

The perennial problem with low-level methods like this is that writing the print routine requires low-level knowledge of the printer, primarily the control codes to perform certain functions, such as "Control-I 136N" to set the interface card's line length to 136 characters and "Escape Q" to select condensed type for the ImageWriter. Printer interface codes are usually somewhat consistent, but the printer codes change from model to model and the programmer (you, in this case) will have to find the codes in the printer manual.

As part of the printer-specific support, you also may have to debug any problems such as missing linefeeds; our printer and interface weren't supplying them as normally configured, so they were added within the script itself (you can also generally configure the printer or interface to add linefeeds). We send the contents of the field a line at a time in a "repeat with" loop and follow each line with a linefeed. (Each line already had a carriage return at the end; that's the definition of a "line" in HyperTalk.)

HyperTalk has a very rich set of text manipulation commands, so formatting text may actually be easier than with Applesoft. Control codes can be sent using the numToChar() function which correlates to the "CHR\$()" function in Applesoft.

For more complicated report generation, enrichments to **HyperCard** may be needed. We don't know exactly what Apple has in store

for version 1.1, but individuals looking for ways to make money in the Apple II market should consider looking into using the provided XCMD/XFCN mechanisms of HyperCard to write product add-ons.—DJJ

Hand-in-hand

I recently bought a Macintosh LC (to use in addition to not instead of my IIGs). I plan to "network" the two computers using System 7 (the LC has 4 megs).

I have a ROM 3 IIGs. I am wondering if you have any suggestions as to which ports to use. The printer port on the IIGs is connected to a dot-matrix printer using the Grappler 9-pin interface which plugs into the printer port serial port.

I moved my modem to the Mac LC (Apple II communications software and decompression software is much more friendly than the equivalent Mac products. It is hard to convert a file downloaded on the IIGs into a form that the Mac can decompress), so the modem port seems to be the port to use.

DuBose Medlock
Spartanburg, S.C.

There's been some confusion on this so we'd like to point the curious toward two older articles. "AppleShare and the Apple II" (September 1989, pp. 5.59-5.62) describes how to set up the IIG or IIGs side of AppleShare; this procedure is exactly the same for the new "File Sharing" option of Macintosh System 7. "A Mac as Apple II peripheral" (July 1991, pp. 7.42-7.43) describes setting up the Macintosh "file server" under System 7 and also describes the cabling. The explanations are somewhat involved but the pertinent information is summarized in those articles.

We normally use the printer port to connect AppleShare, but then all we use are network printers (a LaserWriter and an AppleTalk-equipped ImageWriter). Since you're using the built-in serial port (albeit with the **Grappler** adapter) for a direct-connect printer, you can use the modem port for AppleTalk. On the ROM 03 IIGs, you need to set the Control Panel "slots" setting for slot 2 to "AppleTalk". That will give you access to both AppleTalk and the direct-connect printer.

On the Mac, that leaves you with AppleTalk, the StyleWriter, and a modem to connect. A switch box involving AppleTalk won't work; AppleTalk periodically checks to see if all participants are still hooked to the network and when you switch AppleTalk "off" for more than about a minute (possibly only half a minute) the Mac will be dropped from the network. The best solution would be to connect AppleTalk to the printer port on the Mac and then connect your printer through AppleTalk; that would leave the modem port free for the modem. Unfortunately, the StyleWriter only includes a serial interface, so that's not possible. You're basically stuck with five serial devices (AppleTalk for each machine, a printer for each machine, and the modem) and only four serial ports (two per machine).

There are a few possible approaches on the Mac side; all costing money. One is adding additional serial ports; **Applied Engineering** has a card called **Quadlink** (\$299) that does this. Unfortunately, that will eat your one expansion slot on the Mac LC. Another option is the **TelePort/Fax** modem from **Global Village Communication** (800-736-4821 or 415-

329-0700) that attaches to the ADB (keyboard) connector on the Mac. (Or you could get a network printer (ouch!).)

It is possible to download Mac programs on the Apple II. The stumbling block is that Mac programs are packaged with a file protocol called "**MacBinary**" to preserve the file type and other attributes. (MacBinary was part of the inspiration for the Binary II Protocol used on the Apple II; see "Sending files by carrier bunny", April 1987, p. 3.17.) To unpack these files on the Mac, you need a utility to strip the file from the **MacBinary** package, such as the shareware program **Binflex** or the freeware program **MacBinary**. If the files are compressed, you may also need a decompression utility; the common ones for the Mac are **Stuffit** and **Compactor**, each of which has a "freeware" decompression program (**UnStuffit Deluxe** and **Extractor** respectively).

But there is another reason you may want to download on the Mac; many Apple II communications programs don't work properly with AppleTalk. Among the ones we've tried, **Point-to-Point** and **Talk is Cheap** seem to be the most reliable (although **Talk is Cheap's** editor gags on AppleShare volumes). Our general favorite **ProTERM v2.2** has some problems (we haven't obtained v3.0 to try yet); most programs either lose data or crash or hang outright. Therefore it seems safer to download on the Mac side and copy the files across with AppleShare.—DJJ

MouseDroppings

I have a //e with an Apple mouse in slot 4. (Other slots have FingerPrint, RamWorks III with ColorLink, 5.25 controller, and 3.5 controller.) Shortly after installing the mouse, my AppleWorks began to hang or crash into the monitor. My children use programs like **Flobynoid**, **Dazzle Draw**, and **Playroom** which hang up on them too. My AppleWorks was unusable until I deactivated the mouse from within.

I really don't miss the mouse in AppleWorks since it didn't seem like a natural tool to use with that type of program. It's a bigger nuisance in **Dazzle Draw** since there's no way out except to reboot.

Any suggestions?

Gary Sonnenberg
Waukesha, Wis.

In general, any time a peripheral card or new software is added and problems occur, it's natural to assume the new item is at fault. That may or may not be true and the assumption can lead you on a merry chase. To get the best technical support for a problem, you need to take some steps to determine how to reproduce the problem with a minimum of effort (and a minimum of system components). It's especially hard to diagnose system problems when the computer is in a different physical location. Presenting the least complicated explanation to a technician gives you the best chance discovering the cause and cure; it may also give you a chance to locate a cure for yourself.

Most of the basic recommendations in trying to locate the source of a problem are the same; let us suggest a few. These apply to most apparent problems users run into when changing their system configuration.

Identify how the problem displays itself.

Make a note of the symptoms, including what actions were being performed before the problem occurred. This is sometimes hard to do when you're panicking over the damage that may have been done, but try to get your recollections down quickly. If you can find a simple sequence of steps that will reliably reproduce the problem (using expendable data the next time), you've got a much better chance of finding help. (Emphasis on **simple** and **reproducible**; if someone can't duplicate the problem, they can't solve it.)

Identify the configuration of the system at the time the problem occurred. Know what cards you have installed in your system and what software is installed. Know what you've changed about your system recently; changing it back may "fix" things and provide a clue to the problem. Learn enough about your system to know how to identify the various pieces even if you don't know what they do. If you can't remember, make a list and keep it where you can find it.

Also, you need to know what software was in the computer. On a IIe, this would include the operating system and any additions (like a RAM disk driver). It also could include any programs run before the program that exhibited the problem (maybe a previous program did something improperly that causes another program to crash). On a IIgs, this can get so complicated as to be ridiculous because various "inits" (initialization programs like desk accessories, system setup files, drivers, control panels, and so on are loaded at startup); one of the first steps on the IIgs is to deactivate all inits other than those that come with the Apple System Software to see if the problem goes away. If so, then add them back slowly until the problem resurfaces.

Try to eliminate any superfluous items.

Once you know what the problem is and how to reproduce it, try removing all hardware and software not directly related to the problem from your system. If the problem is still reproducible, make a note of this minimal system setup and send it along with the method of reproducing the problem off to the manufacturers of the hardware and software.

We don't mind if you send us a copy, too, but often we won't have the ability or equipment to run down the exact nature of the problem; we also don't have the schematics, source code, and other references that the manufacturers have. Your best bet for a quick resolution is from the manufacturers. We do try to track descriptions of problems and resolutions so that when someone else reports the problem we may have the answer; that's the best reason for dropping us a line with a description of the problem.

In your specific case: most of the Apple-Mouse interface problems we've heard of involve aspects of using the interface if it is activated; that is, unless a program is trying to use the mouse, it shouldn't have problems with the mouse card. There can be exceptions, but most problems are probably caused by a programming problem, not a problem with the mouse card itself (for example, another program might leave the mouse "activated" for a program that isn't prepared to deal with it).

You should probably try to see if the nature of the problem can be isolated by checking to see if adding the mouse interface has actually caused another problem to surface, and by

seeing if the problems are specific to using certain programs in combination.

AppleWorks does not inherently use the mouse (though some add-in routines like **TimeOut UltraMacros** do). Try booting a copy of your AppleWorks master disk (to insure you have a "plain vanilla" copy, and that another program isn't leaving the mouse card in a bad state) to see if the problem is reproducible. If not, then it may be that some other piece of software running in conjunction with AppleWorks is causing the crash. But first let's check another possibility.

Try removing some of the other "unnecessary" cards (like extra drive controllers, printer interfaces, etc.; whatever is not needed to boot and use AppleWorks to produce the crash) then try reproducing the crash. If the crash doesn't occur, it can mean that another card doesn't like to cohabitate with the mouse (you can check this by adding in one of the cards each time until the crash reoccurs) or possibly that adding the mouse card has pushed the power supply a bit harder than it likes (if removing a card or two seems to make things stable no matter which cards are removed, this is probably the problem).

If the problem is a hardware compatibility problem, you need to let both Apple (the mouse interface manufacturer) and the manufacturer of the incompatible card know how you can reproduce the problem to see if they can come up with a solution.

If the power supply seems overstressed, the options are to try cooling the computer with a fan or adding a more powerful supply (or both).

If AppleWorks does work all right but you weren't using it "plain vanilla", you'll need to add in any software you're using in combination with AppleWorks (such as a program launcher to execute AppleWorks, or enhancements and patches such as desktop expanders) one at a time until you find the combination that causes AppleWorks to fail. Keep track of the order you add the enhancements and the version numbers of the various items so that you can supply a detailed procedural list to the manufacturer of the apparent "problem" program. Then let them know your system configuration and a way to reproduce the problem and see what they can suggest.—DJJ

Seagate sufferings

In your October 1991 issue (page 7.71), there is an article about a hard starting Seagate hard drive. Your advice about saving up for a new drive was probably right on cue.

It seems that several Seagate drives have similar problems. I had a 20 meg ST125N drive that had the exact same symptoms. I cured it basically the same way a few times, i.e., turning off and on the power switch. Another cure seemed to be just to leave it on all the time. However, my recent move from Tacoma, Washington to Texas forced me to turn it off. Well, that was the end of my hard drive. I tried a solid week to get the thing turned back on. I'd bet I flipped that switch off and on ten thousand times...(well, probably not) to no avail. Since the unit was out of warranty and I had nothing else to lose, I decided to open the cabinet. The flywheel of the platter/s was in an exposed position so I very carefully nudged it with a pencil eraser and I could "feel" it break loose. I put the cabinet back on and flipped the power

switch and presto! Seemed to work just fine. I didn't turn it off but 2 days later it started making a very loud whining noise, all of a sudden the drive would not show up and I kept getting an I/O error.

Now I was in big trouble. Again, I popped the top and finally opened the platter case too. My nightmare was confirmed. This drive has two 3 1/2" platters with four heads. The lower head was just laying aside on top of the lower platter with a little copper wire hanging and three **huge** circular gouges in the platter. I figured it couldn't be saved so I scrapped it and bought your 100 meg unit. I am reluctant to purchase another "plain" drive to replace it with because of the history of problems with these drives.

Anyway, just one more letter about bad luck with Seagate drives. My drive was 26 months old. Since I bought it with an Apple credit card, I only had it paid off for about four months.

Jack Taylor
Big Springs, Texas

Not for education only

My system is a IIc Plus with a 1-meg Ram Express and an external 3.5 drive. Using AppleWorks 3.0 with *TimeOut* enhancements enable me to do many productive things. The most fun is keeping stats for the local high school football team. I even key in scouting reports and sort for tendencies. (The team went to the finals of the state Class A playoffs last year.) Our other major activity is genealogy. *Family Roots* by Quinsept allows my wife and me to handle over 12,000 records (and growing). By the way, she has a //e with a 1-meg RAM card, a Zip-chip, and a 40-meg hard drive.

In case anyone needed convincing, this shows that the Apple II isn't just for education and games!

W.G. Worden
Midland, Minn.

This is just the kind of feedback we all need, W.G! We own machines that we like (okay, that we love <grin>), that are old friends, that do what we want them to do.—edr

Surreal wizardry

I'm teaching myself assembly/machine language programming for the 6502 with the aid of several good books I've got from the library (*Apple Machine Language* by Inman, 6502 *Assembly Language Programming* by Lampton, and *Apple Assembly Language* by Mauer). I know I'll need to procure a copy of *Merlin* pretty soon but you carry it, so far so good.

Where can I find out the technical details of passing serial data through my Super Serial card to and from a small data acquisition system I'm about to design? I'm assuming the data will appear at the card's output and my program will move the data to the appropriate memory locations for further manipulation that I can manage. For this discussion, assume that I'm a wizard when it concerns the data acquisition portion of this problem. Your assistance will be greatly appreciated.

Brad Albing
Macedonia, Ohio

*Apple has placed the programming information for the Super Serial Card in Appendix H of the newest (hardcover) edition of the **Apple IIe Technical Reference**.*

For the best information about using the Super Serial card see our own "Control Interface) S(tandards)", October 1987, pp. 3.65-3.68 and "Using the Advanced Interface", January 1988, pp. 3.92-3.94. —DJJ

Disk space forecasts revisited

J.D. Holdeman wondered about a utility that could be used to predict the amount of space needed for programs in a directory and its sub-directories ("Disk space forecasts", **A2-Central** October 1991, p.7.70)

Since he seems to have Glen Bredon's Pro - Sel utilities, he will be happy to know that the information he seeks can be obtained by using the "Information Desk" utility. You just have to catalog the appropriate subdirectory, thereby obtaining a full count of disk space used, for it and all of its subdirectories. 'Info Desk' will tell you the various spaces used at the bottom of the catalog listing. Check it out.

James Davis
Hayward, Calif.

Stock solution

In response to the inquiry in the October issue regarding a program to compute running averages, I enclose a program written in *Apple Logo II* that I have used for some time. I use the foregoing program to develop over time, maintain the data and compute 39 week running averages for a handful of stocks that I am interested in or own and the Dow Jones Industrial and Standard and Poors 500 averages.

The list handling properties of Logo made the development of this program quite simple. Current values are entered manually, however, the number of companies that I am interested in is small so that the hasn't been a problem. Additional turtle graphic programs allow the drawing of graphs when desired.

```
TO WEEKLY :COMPANIES
  IF EMPTY :COMPANIES [THROW "TOPLEVEL]
  MAKE "STOCK THING FIRST :COMPANIES
  PRINT FIRST :COMPANIES
  MAKE "N COUNT :STOCK
  COMPUTE 0 1
  TEST :N = 39
  IF TRUE [FULLLIST]
  IF FALSE [PARTLIST]
  WEEKLY BUT FIRST :COMPANIES
END

TO FULLLIST
  MAKE FIRST :COMPANIES BUT LAST THING FIRST :COMPANIES
  MAKE FIRST :COMPANIES PPUT READWORD THING FIRST :COMPANIES
END

TO PARTLIST
  MAKE FIRST :COMPANIES PPUT READWORD THING FIRST :COMPANIES
END

TO COMPUTE :SUM :M
  MAKE "SUM :SUM + ITEM :M :STOCK
  TEST :M = :N
  IF TRUE [PRINT :SUM / :N STOP]
  IF FALSE [COMPUTE :SUM :M + 1]
END

MAKE "COMPANIES [DOW.JONES S.AND.P]

MAKE "S.AND.P [385.9 387.92 383.59 389.1 395.43 394.17
385.58 387.12 387.18 380.93 384.22 380.25 374.08 371.16
377.75 382.29 379.43 389.83 372.39 375.74 380.8 379.02
384.2 380.4 375.36 375.22 367.48 373.59 374.95 370.47
365.65 369.06 359.35 343.05 336.07 332.23 315.23 321
```

328.72]

MAKE "DOW.JONES [3006.04 3019.23 2985.69 3011.63
3043.6 3040.25 2968.02 2996.2 3006.24 2972.5 3016.32
2980.77 2932.47 2906.75 2965.56 3000.45 2976.74
3027.5 2886.63 2920.17 2938.86 2912.38 2965.59 2920.79
2896.78 2913.86 2858.91 2948.51 2955.2 2909.9 2889.36
2934.65 2830.69 2730.69 2659.41 2646.78 2501.49
2565.84 2629.21]

Stanley Robinson
Cheney, Wash.

Ironically, the November 1991 **A2-Central on Disk** contained a shareware program called **Stockier** by Gary M. DeLong. It's a fairly complete stock analysis program that includes moving averages, relative strength, a simple under-valued-overvalued indicator program, and a psychological (most contrary) indicator program. It will run on almost any Apple II.—edr

CD-ROM/laser DISCussion

I reviewed your articles in **A2-Central** (February and July 1990) on CD-ROM and laser disc players. What's the difference between the two kinds of devices?

I understand from information printed in *Byte Magazine* that most CD-ROM players are SCSI devices. But it was not clearly stated in your articles whether third party laser disc (or CD-ROM) players could be connected to an Apple IIgs via Apple's SCSI card (Rev. C or DMA). One would have thought that most SCSI devices would be compatible with Apple's SCSI cards. Or is a separate peripheral card necessary? Also, will GS/OS System software work with third party players like those marketed by Pioneer, Sony, Hitachi, NEC, Denon, or Phillips?

Furthermore, a regular column ("Chaos Manor") in the July 1991 issue of *Byte Magazine* mentioned a SCSI read/write laser disc player called a Pioneer *Minichanger*. I wondered if it could be connected directly to an Apple IIgs via Apple's SCSI card. The possibility of having 2 or 3 gigabytes of storage is mind-boggling. Such a device might be better than removable hard disks.

One area which requires inexpensive massive storage of information is education. I hope Apple, Inc. does not ignore another opportunity to market the Apple II properly given the fact that the machine currently has about 50% of the K-12 market. In fact, the Apple IIgs is ideally suited for this. It has an operating system that supports the High Sierra format and the sound capability that is second to none for its price. What Apple needs to do is increase its speed to 10-12 MHz and its graphics resolution to at least VGA standards and aggressively market it.

I wouldn't be surprised if Nintendo (a game company whose latest machine, the *Super FamiCon*, uses the 65816 chip) "steals" the education multimedia market from Apple after its tie-ups with both Phillips and Sony. In fact, this may be a golden opportunity for Japanese companies to break into the computer market with their proprietary systems. They not only manufacture the various components making up a multimedia system (CD-ROM, stereo sound systems, communication systems, etc.) but they have always been good at graphics programming.

P.M. Lim
Singapore

There are a broad range of laser media players, but when deciphering their purpose

Occam's Razor applies; don't extrapolate the capabilities of the device beyond what the name tells you. Laser disc players play laser discs. CD-ROM players play CD-ROMs.

"Laser disc" is assumed to imply laser video discs (See "Picture this", July 1990, pp. 6.41-6.43). Some newer players can also play audio compact discs ("CDs") in addition to 5" CD-V (CD-video) and 8" and 12" video discs. Some also have computer interfaces. A brand new affordable Sony model, MDP-1100 (**The Voyager Company**, 1351 Pacific Coast Hwy., Santa Monica, Calif., 90401, 213-451-1383, 1-800-446-2001) actually has all these abilities for \$695.

What these players lack is data capability (compact disc read-only memory, or CD-ROM). Some people apparently think that since CD-ROM discs are the same size as audio CDs that any CD player should be able to play CD-ROMs. This is wishful thinking that won't make it so. The drive electronics have to be able to read and present the data to the computer under computer control or the two can't communicate. Often audio CD capabilities are added to CD-ROM players to enhance their utility, but these should be seen as modified CD-ROM players (with audio added), not as modified audio players.

There are several other data formats defined for CD-ROM storage, such as CD+G, which stores (still) graphic images (I have one of these discs at home and have yet to find a player than can display it). There are also other types of laser-based media storage options out there. Most aren't common enough for the average computer user to worry about; either the prices are high or the media is not portable between players of different manufacture.

It may be that someone like Sony (who seems to be broadening the capabilities of its laser media players) will eventually build a unit incorporating all standards, but we haven't seen such a device yet.—DJJ

Live with it

The article by Jay Jennings concerning "Psychic Energy Drain" is commendable. The Apple II community has spent entirely too much energy on bashing Apple (not that they didn't deserve it) and not enough money supporting Apple II developers.

Apple has made it very clear in recent months that they have no intention of advancing the Apple II platform. The Rob Barnes presentation at KansasFest was the first clear indication. The October mailing from the User Group Connection contains additional proof. Watch the video of John Sculley's address to the User Group Advisory Council. It is obvious by comments in his opening statement and answers to question afterward that the Apple II has no place in Apple's future. Their commitment to the Apple II is only to support the existing base until it shrivels up and blows away. It is also clear from his comments that the Macintosh will meet a similar fate once new products arrive from the new IBM/Apple venture.

Do I find any of his comments troubling? Not anymore. It did drive home the point that regardless of what might be possible for the Apple II, it will never happen. Apple's support for the Apple II will be limited to system

software upgrades and minor hardware improvements like the high density drive announced at KansasFest.

Is it time to jump ship for something new? That is a question that only the user can answer. My IIGs does everything I need to do very well and I will continue to use it until it can no longer fill my needs. But as Jay suggests, the clone route will be the best choice for most of us.

It can be summed up very simply. The future of the Apple II is squarely in the hands of the user.

Bill Calhoun
Washington Area Apple User Group
Claysville, Pa.

Network nuisances

I have been very happy using our 3 Apple IIGs' networked with a Macintosh Plus and an 80 meg Seagate hard disk. in our tax-law office. The problem is that various stations hang at unexpected moments while using AppleWorks 3.0 with *UltraMacros* and other *TimeOut* add-ons. We can go for days without any problems, then suddenly, a crash. We are able to recover files in memory using Control-reset but the station is then disconnected from the Mac network and the whole system has to be restarted. Is this a familiar problem to you and is there a solution? I tend to believe the problem lies in *UltraMacros*.

Furthermore, running the Applied Engineering *PC Transporter* from a harddisk connected to a

workstation/IIGs while AppleShare is active results in a waiting period followed by beeps indicating that AppleShare is disconnected. Similar problems arise with *Gazelle* communication program hangs when quitting. Is there a *Viditel* communications program available that is compatible with AppleShare and will the *PC Transporter* software be upgraded to run from the Mac file server?

Solving these problems would leave me with a great network system which is simple to operate, fast enough and means that I can stick with the Apple II for another few years, and even more if Apple is prepared to support and develop the Apple II in the future.

Aart Spaans
Rijswijk, The Netherlands

We use *AppleWorks 3.0* and *UltraMacros* with AppleShare extensively and haven't had the spurious crashes you mention. Have you checked version numbers with Beagle Bros (we have *AppleWorks 3.0*, *UltraMacros 3.1*, and *TimeOut 3.01*; I didn't bother looking up the rest of our utilities) and have you installed the Beagle *AppleWorks* patches (the current version is up to 1.6)?

(We had problems with *AppleWorks 2.0* and the versions of *UltraMacros* for it, apparently to some sensitivity with AppleTalk interrupts and *UltraMacros* use of memory, but have had no such problems with the recent versions.)

Usually when the network disconnects while in an application, it's because the application (or one that ran before it) disabled interrupts or doesn't enable interrupts often enough to let AppleTalk verify that the workstation is still on the network. AppleShare sends out "tickle packets" to periodically request verification of the workstation's presence; if the station fails to respond for a minute or so, the network discontinues communication with it. Programs that disable interrupts for long periods of time or for a high percentage of the time cause problems. It's possible this is what's happening with the *PC Transporter* (we don't have one here to test) and with *Gazelle*.

Many communications programs assume all interrupts are "theirs" exclusively. With AppleTalk, this may not be the case and such inelegant brute-force programming makes people like us using the Apple II in a working environment crazy since it interferes with AppleShare and sometimes even printing. Programs we've found that generally work are **Point to Point** (version 4.0 and later), **Talk is Cheap** (version 3.1 and later work fine from the terminal mode, though the editor gags on AppleShare volumes), and **AppleWorks GS** (you get a warning that you may lose data, but we've generally seen this happen only rarely).

Applied Engineering's **ReadyLink** seems to survive in communications mode but may lock up when trying to access an AppleShare volume for disk operations. This is more of a problem than with **Talk is Cheap's** editor since the method of drive selection is different (tabbing to a new drive can send you to a network volume without a way to bypass accessing it). We'll advise that the last version of **ReadyLink** we tried is 1.3.

ProTERM v3.0 may have better support, but so far versions 2.2 and earlier have been very unreliable with AppleTalk, usually crashing or locking up the system.—DJD

Hamming it up

About ten years ago there were some nifty Apple programs around that helped to bring amateur radio into the computer field. One of these was the *Communications Package*, which enabled hams to send and receive Morse code and radio teletype on their computers. The other was the *Slow Scan Television* package which allowed the transmission and reception of still, black and white pictures. Both of these Apple programs were written by Chuck Galfo, WB4JMD.

These days the IBM's dominate the field with programs for Packet Radio, Satellite Tracking, Facsimile, etc. There are *Color Slow Scan* programs for the Atari and some of the British computers. There seems to be nothing available for the Apple, well, in Australia anyhow. As the owner of an Apple IIGs, I would dearly love to compete with the IBM's in the Ham radio field. What I would like to know is:

1. Is Chuck still writing Apple programs?
2. Is there Ham software available for the Apple IIGs?
3. Would someone like to write some software for the Apple that would reverse the dominance of Big Blue in the Ham radio arena?

Bill Currie
VK3AWC
Mordialloc, Vic.

Gee, Bill, if Jay had seen this letter before he wrote his feature article, he could have tried to track down Chuck Galfo as well (even if he doesn't fall into the 'games' category). His findings probably wouldn't have been much different from the other 'no shows', though. We don't have the answers to your questions but perhaps one or two of our readers do.—edr

False (not really) advertising

As a longtime (charter subscriber) and satisfied reader of your publication, I regret to have to send this complaint of false advertising. You mentioned in the November 91 issue a font sample printout available from Stuart Goldman at a cost of \$6.00.

After receiving his extremely professional printout I realized that the cost of the (28 front & back) pages I held in my hands would cost me much more than \$6.00. I found so many wonderful fonts on those pages that I predict a record GENie bill in the next month or so.

Please be more careful publishing the costs for products before considering the "incidental or consequential damages" that such purchases might cause.

Humorously yours...

Randy Chevrier
Tulsa, Okla.

Sorry, but we don't mind costing you money as long as you get your money's worth. We like mentioning products like this (inexpensive and useful).—DJD

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