Juiced.GS

É May 2004

Volume 9, Issue 2

In Memoriam



Gary Utter at KansasFest. Photo courtesy Cindy Adams

The staff of Juiced.GS remembers Gary Utter

Inside

this issue ...

ISO-lo-mi-o:

Geoff Weiss on using CD-ROMs with emulators Pages 8-9

MusinGS:

Doug Cuff talks to Silvern Castle author Jeff Fink Pages 6-7

Dungeons and Dreamers:

A review by Ken Gagne Page 17

KansasFest 2004: keynote speaker announced Page 18

> And much, much more!!



My Home Page

Leading from the rear, no more

If I seem sad, it's only because I am. The news of the passing of Gary Utter, one of my greatest friends and a true pioneer in the Apple II world, came as a heart rendering (if not totally unexpected) shock when I heard about it in early spring.

Those of you who participate in the online Apple II communities which have flourished since the early 1980s largely have Gary to thank for their growth and success. Gary was one of the brightest lights on CompuServe, GEnie, and Delphi, and was instrumental in the development of Syndicomm, the parent company of Juiced.GS which is now owned by Eric "Sheppy" Shepherd. Often going by the online handle of Hindmost, Gary was known for his brash outspoken manner and his inimitable sense of humor. To those who worked closely with him, he was also known for his vision and leadership.

Personally, on the outside, it would seem that the two of us had more differences than similarities by far, but the truth is that we were both passionate in what we believed; we were both outspoken; we both loved a good time; and we both could laugh. Together, even, as we did several times in the heat of the Kansas City summer, and this past year in Gary's home in Rochester, New York. In fact, as I was typing this, I came across a bunch of old messages from Gary, every one of them funny enough for me to laugh out loud, one more time.

The Juiced.GS staff pays tribute to Gary later in this issue.

I miss you, Gary. I'd love to hear one more joke, one last time.

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In this issue, we (finally) take a break from Apple II networking and concentrate on other matters. Legendary Apple II writer Doug Cuff returns to interview yet another Apple II stalwart, Silvern Castle author Jeff Fink; Geoff Weiss contributes an article on using ISO disk images with Apple II emulators; Richard Bennett-Forrest continues his series on Apple II emulation; and Ken Gagne returns to his series of book reviews, this time talking about a book on video games. There is, of course, even more in this issue, but we'll let your fingers do the walking and check it out on your own.

Do you have some topic you want Juiced.GS to cover? Some burning question or hidden program you want us to research? No promises, but say the word and we'll certainly look into it.

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Your language lesson for this issue: in the native tongue of the islands I live in and love, "hana hou" means "one more time". So, it's KansasFest hana hou for me and I hope many others. This year will make a decade of trips to Avila for me.

The first time I met Gary Utter in person was in Kansas City at KansasFest 1995, and aside from the night I spent at his house a few days later, the last time I saw Gary in person was in Kansas City at KansasFest 2003. And while Gary may no longer be with us, KansasFest is.

Stay up all night, laugh all day, make friends with Apple II users around the world. Meet someone you've known forever but never seen in person or meet someone you've really never heard of before.

It's very hard to explain what the party with the code name KansasFest really is to those who haven't been there before; for those who have, there's very little I need to say.

I'll see you all at Avila in July.

Ryan M. Suenaga, M.S.W., L.S.W. Editor-in-Chief

Letters from the Land of Rom

Dear Juiced.GS ...

Regarding A.P.P.L.E.

Ryan, any idea about the current status of this organization? Their customer service sure sucks, in my situation...

–Stephen Hartz via the Internet

Stephen,

A.P.P.L.E. has been one of our advertisers for several issues now, so I forwarded your letter to our primary contact there, Bill Martens, for their reply.

Bill's reply indicated that he believed your problem has been resolved. There apparently have been crashes and several other issues with the computer systems that A.P.P.L.E. has been using. He stated that they would be getting back to their regular schedule "this month", apparently meaning April (this reply is being written in mid-April).

I hope A.P.P.L.E. is able to get back on schedule. I know how difficult it is to produce a relatively small printed quarterly publication in spare time; I can't imagine how much more difficult it would be to do so monthly. Good luck to their staff in this challenging venture.-Ryan

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My copy arrived here in Lincoln, Nebraska. I've not read it yet... so I am

Juiced.GS Index

Volume	9	Issue	2	-	May,	2004
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Cover][Cover	17
DumplinGS	18-19
Gary Utter tribute	4-5
Jeff Fink interview	
KansasFest advertisement	13
KansasFest by air	10-12
Letters	3
My home page	2
Outback emulation	14-16
Syndicomm advertisement	20
Virtual GS	

holding back my praise.

One thing different this time, is that instead of a page insert with the address printed on it, the address was printed on the issue itself. Not a huge deal. Just something to note.

–Dain Neater via the A2 Forum on Syndicomm.com

Dain,

I'm glad that the change in address printing was not a big deal to you as a subscriber. It was a bigger deal to us here at the intergalactic headquarters, because the issue was entirely laid out and ready to go without knowing of this change in printing style.

A quick shuffle of advertisements got the issue out the door without too much of a headache, but we certainly would like to regain that half page of space for stories.

While one half page may not seem like a big deal, it's about 2.5 percent of the total available every quarter. While Apple II news is not overflowing, we certainly don't want to give our readers any less coverage than we can. In Volume 9, Issue 1, we did not have to cut any non-advertising content to accommodate the reduction in space, but every square inch counts.

Publisher Eric "Sheppy" Shepherd is in contact with our printers (once again–I'm sure many of you remember the upside-down issues that plagued us awhile back) to try to work out the matter.–Ryan

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Would you like to see your name in print? Send your comments, questions, or concerns to the electronic mail or postal addresses listed in the sidebar to the right. We publish all letters from subscribers with content relevant to the Apple II, the Apple II community, and Apple II events worldwide.



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Juiced.GS was produced on a real and emulated Apple IIGS using Bernie][The Rescue 2.6 and GraphicWriter III 2.1.

Juiced.GS Tribute: Remembering Gary Utter In Memoriam: Gary Utter

By the staff of Juiced.GS

Editor's note: Apple II pioneer Garv Utter passed away in early March after a long battle with illness. Gary was best-known in the online Apple II communities of Compuserve, GEnie, and Delphi, and was one of the owners of Syndicomm before the company was sold to Eric Shepherd. The staff of Juiced.GS all knew Gary at least electronically if not in person; in fact, he and his wife Susan were in attendance at KansasFest 2003, the last time most of them saw Gary alive. Our deepest condolensces to Susan and the rest of Gary's family. Some of the staff members wished to share a few words about Gary...

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Howard Katz:

Gary combined the seemingly opposite traits of patience and a good sense of humor, which he always used to point out the absurdities of the people he came in contact with. He would help you work through a problem and then laugh with you when you finished. He could find almost any situation funny, and loved telling stories about what happened. He'll be missed by more people than he realizes, and while I never got a chance to see him outside of KansasFest, knowing he won't be around makes this a sadder world.

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Doug Cuff:

Despite the fact that I met Gary only twice (once at KansasFest), I have to say this news rocked me a bit. It's been at least 8 years since we were last in touch, so I hadn't heard about his long illness.

The first thing I thought of-indeed,



The way we'll remember him: Sitting on the floor at the halls of Avila, the barefoot Gary Utter. Photo courtesy Eric and Sarah Shepherd.

it has always been the first thing I thought of when anybody mentioned his name-was how he did me a considerable kindness when I was at a particularly low ebb.

When I was editing GEnieLamp A2, I had the time to do a good job largely because I couldn't find steady paying work. That period of under-employment stretched past the common six-month mark into one and then two years. If the effect on our finances was hard, the effect on my self-esteem was disasterous. A harsh word might have brought me to tears; a kind word would have had much the same effect.

My wife was studying computer science then, and trying to do it without a computer. We scrimped enough to buy a used Apple IIGS at the same time Gary annouced he had a ROM 3 for sale. I drove down across the border to Buffalo and met Gary and Susan in a shopping mall. We conducted our business in a friendly, companionable way. As we passed a stand selling freshly-baked cookies that were the size of the craters on the moon, Gary said, "Hey, that's for me. Anyone else want a cookie? Doug? I'm buying!"

Now if you have always had enough expendable income to treat yourself to these little luxuries, then I promise you that you have no idea how it feels to have someone else offer to treat you when you have no income. I accepted that gargantuan cookie with nearly as much gratitude as I accepted the offer itself. I had been worried, I had been feeling low, and I had been living in a strange city with only one person for company. To have someone do me a kindness-any kindness-well, that was a gift even bigger than that cookie.

By that time, Gary and I had had any number of online disagreements, as our philosophies diverged widely. His arguments were generally

Juiced.GS Tribute: Remembering Gary Utter

respectful of his opponents rather than contemptous of them-not that he ever hestiated to employ some pretty cutting sarcasm. We weren't best buddies, is what I'm trying to convey to you. For all I know, he had even bigger money worries than mine that day. But he offered to treat me.

So thanks for the cookie, Gary, but thanks also for the lesson. Susan is not the only one who misses him today, not by the longest shot.

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Ryan Suenaga:

I met Gary online long before I met him in person. At first glance, aside from our taste in computers (Apple II, Palm, and Macintosh) and chronic diseases (Type II diabetes), it wouldn't seem we had anything in common: he was a Vietnam vet; I can't even recall the war going on. He was a political conservative; I was so far to his left that if he turned his head to his right, he might be able to see me in the distance. He liked his hair short (to stop pulling it out from its roots when he worked with uncooperative computers, he often joked); I like mine long. He was from the east coast; I'm from an island in the middle of the Pacific. He was a dedicated husband: I'm a fiercely proud bachelor.

What I found on further review was that despite our differences, we had much in common-much more than I think either of us expected. We were both passionate in our beliefs and outspoken about our opinions. We loved good food, and good people, and above all, we both loved to laugh-and with Gary the laughter was abundant.

I started to worry about his health around 2000, and I really began to worry when I saw pictures of him during a Disneyworld trip—while it was clear he was enjoying himself, it was also clear he was in a wheelchair.

This past summer, I made it a point to spend a couple of days with Gary and Susan while I was travelling the continent. They of course showed me a great time, although it was clear that he was having a hard time getting around. I met their family, ate some pasta, and had a great time; then the next week, we were all in Kansas City, and Gary got to meet Woz, who I think was someone he admired more than almost anyone. It was great to see.

The night I heard of his passing, I went through some of my email to see when I had last gotten something from him; it was just a day or so earlier, saying nothing about his being sick, or not feeling well.

Instead, it was a World Wide Web link to a Calvin and Hobbes site.

Thanks, Gary; I'll miss the laughter.

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Eric Shepherd:

While many Apple II users have heard of Gary Utter, I wager that most have not. And among those that have, I doubt many truly realize the key role he played for so many years in our community. Gary was the driving force behind all of Syndicomm's forums on GEnie and Delphi for as long as I can remember, including the Apple II and Apple II Programmer's forums. While he didn't directly run them himself, he provided guidance and a much-needed center to keep us all in line as a cohesive force to serve the needs of Apple II users around the world.

Gary had a unique ability to use his coarse sense of humor one minute to create a bond among the people around him, then turn around and make things happen. These skills served him-and by extension, the Apple II community at large-very well.

When Gary told me he was sick, his sense of humor was so strong it seemed like it would be enough to sustain him. Even while delivering the increasingly bad news about the state of his health over the years, he did it with a humorous style that kept you convinced he would be fine, even though deep down you know his time was increasingly short. When we lost him, it was a blow not unexpected but somehow unanticipated. Maybe that doesn't make sense, but that's the way it feels.

Gary, wherever you are, I'm sure by now you're either running the show or running from whoever is. We miss you.

Ken Gagne:

Gary was one of the few people who remembered when I first signed onto CompuServe's APPUSER Forum as "Kenny" Gagne, and one of the fewer people still who could still call me that. Gary was often particular about getting his way, and I wasn't about to quibble over this detail, no matter how it irked me.

There was one time Gary was insistent on an aspect of the Showbiz forum he operated on GEnie, and emailed one of the forum staff on the issue. Or he meant to, anyway; somehow, I received the message instead. I told him it was an error, as I was not a Showbiz staff member-unless he knew something I didn't? He took my joke seriously and put me on the Showbiz staff as a writer. It was one of the first experiences I had that led me to later be a regular, professional columnist for various publications.

Though I'd known Gary's body was not always at its best, Gary himself was unbelievably resilient, and so I was surprised when I read of his passing. With the help of a saving grace, I was able to attend Gary's funeral. I was disappointed to be the only Apple II user available to honor him, but glad at least one of us could make it. I'd never before seen his wife, Sue, anywhere but at KansasFest; and I don't think anyone had ever been so stunned to see me anywhere. I don't know how I could've been anywhere else. If Gary wanted to call me Kenny, or have me on his Showbiz staff, or attend his funeral, who was I to argue?

I'm still writing, Gary. And I know that, somewhere, you're still reading. Thank you.

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Susan Utter and the Utter family requests that if you would like to do something in memory of Gary, to please send a donation to the Chili Fire Department, 3231 Chili Avenue, Rochester, New York 14624.

Silvern Castle author Jeff Fink

The best Apple II programmer you may never have heard of

By Doug Cuff

Editor's note: Not many Apple II users had heard of Jeff Fink before his phenomenal game Silvern Castle was unleashed on an unexpecting world by Juiced.GS Founder Max Jones at KansasFest 1999. Despite its critical acclaim, Silvern was unfortunately not a financial success, garnering only a handful of shareware payments. Undeterred, Fink continues to work on the now-freeware adventure game and to take the Apple II and its fans into 8-bit worlds previously unknown.

Cuff: When did you start using an Apple II?

Fink: In 1983–an Apple IIe with DOS 3.3.

Cuff: When you did start programming your Apple II?

Fink: After I self-taught myself BASIC, in early 1984.

Cuff: Tell us about working on Silvern Castle before you submitted it to Softdisk in 1988.

Fink: Way back then, Silvern Castle was all text except for the maze display with four lines of text on the bottom, and in DOS 3.3. However, Softdisk required ProDOS, so I had to venture into ProDOS land for the first time before I could submit Silvern Castle. After that Softdisk expressed interest if I would use their hi-res character generator to convert to all hi-



Fit for a King: Jeff Fink's 8-bit computing masterpiece, Silvern Castle, a Wizardry-like adventure written largely in Applesoft BASIC.

res, after which they purchased Silvern Castle. Softdisk never did publish Silvern Castle, and the rights have been reassigned back to me.

Cuff: Did you submit anything to Softdisk that they did publish?

Fink: Yes, High Stakes Poker (issue 102) and Treasure Hunter (issue 105).

MusinGS: Jeff Fink intreview

Cuff: In retrospect, obviously the comment that a Wizardy-like game is "...a game that simply could not have been written in BASIC" is incorrect. But do you recall how you felt when you first heard that? Were you incredulous, or were you defiant?

Fink: Back then I didn't know about assembly or Pascal, so I didn't know you weren't supposed to write a role-playing game in BASIC.

Cuff: Apart from Wizardy, what Apple II games have been significant in your life?

Fink: I'm not a real gamer, my favorite Apple II games have been strategy mostly, games like Imperium Galactum, Pirates, Roadwar, and Battlecruiser. Since all these are partly done in BASIC, I had much more fun modifying them than playing them.

Cuff: What non-game Apple II software has been significant?

Fink: Mostly programming tools and utilities, like MicroDot and most Beagle Bros titles.

Cuff: Your game is clearly popular. Why do you think you received only nine paid shareware registrations in the period before you declared it freeware?

Fink: To be active in the Apple II community you have to be online. Like most things on the Internet, people don't want to pay for what they download. Now, if you pay to be part of Juiced.GS or Syndicomm, you are more likely to support shareware.

Cuff: How did your game become so well-known among the Apple II community?

Fink: Mostly through the Apple II online community and Juiced.GS. I really have to thank Max Jones for initially showing it at KFest '99 for the first time.

Cuff: Have you had any complaints that the game no longer supports 5.25" drives?

Fink: Nope. Probably at this point the only way you are going to hear about Silvern Castle is via the internet. In this case, you probably have an emulator or super system already, especially if you're still paying for Apple II news like Juiced.GS.

Cuff: What computers do you have at home? Do you use a genuine Apple II or an emulator?

Fink: I use genuine Apple IIGS systems exclusively. I have about three "super" GS systems and many more basic setups. My personal GS was acquired in 1988, the others are

mostly from Apple II rescue missions I participated in.

Cuff: Would you tell us more about your Apple II rescue missions?

Fink: The most interesting was an Apple II rescue in southeast Wisconsin that was organized through discussion a few years back on Syndicomm after [Eric Shepherd] was contacted by someone who had some Apple II systems to give away.

Basically the front room, basement, and garage were full of Apple II stuff, mostly GS systems, although there was plenty of IIc and IIe stuff too, including software. A few of us packed our cars to save most of it. There must have been nearly a hundred complete systems.

Cuff: This is not a game for a novice, instantgratification player. There's specific advice on how to begin included with the game. Do you have any advice for how to get into the right mindset?

Fink: This is a game about managing resources and taking risks. In that sense it doesn't hurt if you never looked at fantasy like Lord of the Rings or Dungeons & Dragons before—but it helps.

Cuff: How long does an average game take to play?

Fink: It depends. The game is really open-ended. You can finish the scenario goals, but in reality you can go on forever (almost).

Cuff: What game enhancement are you proudest of?

Fink: The automap feature, and the second and third scenarios. Unlike the first scenario maze–which was computer generated with a little tweaking–I actually wrote a maze editor for the other scenarios. Although, as far as I know, only one person has seen and finished all three scenarios.

Cuff: Who is the person to have finished all three Silvern Castle scenarios?

Fink: Bruce Baker. Many others have finished the first scenario.

Cuff: Do you feel you have taken Silvern Castle as far as you can, or do you have ideas for future development?

Fink: Not even close. New versions are always on the horizon. For me, programming the game is almost more fun than playing it.

One of the Apple II world's most accomplished and prolific writers, Canada's Doug Cuff has edited GEnieLamp A2, A2-Central, and II Alive.

The Virtual GS: Using ISO disk images in Apple II emulators ISO-lo-mi-O

By Geoff Weiss

Accessing CD-ROMs from an Apple II emulator can be a challenge. The host operating system must be able to mount the CD-ROM. For non-Mac computers, this means that most Apple II CD-ROMs are not accessible to an emulator. And then there is a limit on the GS/OS side where it will only see the first session of a multi-session CD-ROM.

Fortunately, there is a solution in place where any Apple IIGS emulator can use any GS/OS readable CD-ROM. An added benefit is that additional sessions from a multi-session CD-ROMs may be accessible from GS/OS as well. All that is needed is an ISO disk image of the CD-ROM.

A little bit of history

In March 1988, Apple Computer released their first CD-ROM drive. Drivers were immediately available to allow the Apple IIGS to access CD-ROM disks—as long as there was a ProDOS partition. This proved to be very limiting—it took an additional six months before Apple showed what they had in store.

The Apple II did not become CD-ROM savvy until the release of Apple IIGS System Software 4.0. This OS release included the High Sierra FST (HS.FST) to allow reading the file system found on most CD-ROM disks. There was no significant improvement to CD-ROM access with the release of System Software 5.0. High Sierra evolved into the ISO 9660 standard (or ISO for short). Additional extensions were added to the ISO 9660 standard and most were never implemented in the HS.FST.

Making an ISO

There is no method to make an ISO disk image on an Apple IIGS. This would have to be a task for the system which runs a IIGS emulator. Software which supports burning a new CD-ROM will most likely also have the capability to create an ISO image from an existing CD-ROM. The manual for the software should provide detailed instructions.

I used Adaptec Easy Creator 4 CD Copier and learned that the option to make an ISO is available only by pulling up the CD Information dialog box. The software has since been upgraded and is available at **http://www.roxio.com/**; both Mac and Windows versions exist. It is best to use a .iso extension for an ISO file to easily recognize it as such.

There are some CD-ROMs where there are multiple sessions of data. These sessions can be independent file systems or linked together. Those that are linked together are not supported on an Apple IIGS. Independent file systems sessions can be made into separate ISO image files which can individually be accessed.

There are some enhanced audio CD disks (such as CD Plus or CD Extra) with an additional session containing computer data. The computer data portion can be made into an ISO image, allowing it to be accessible from an Apple IIGs emulator. Figure two shows the files from a second session on a Squirrel Nut Zipper audio CD.



Figure one: Opus II ISO disk image in the Finder. It's a High Sierra hard disk!

ISO images tend to be hundreds of megabytes in size. CD-ROMs can hold 650 to 700 megabytes of data. There should be plenty of hard disk space available if an ISO image is to be used with an emulator.

It should be noted that making an ISO image does not require the host operating system to be able to mount the CD-ROM. Windows can not mount Macintosh HFS CD-ROMs, but it can easily make an ISO copy which an Apple IIGS emulator can easily read.

An ISO image also does not contain any standard CD audio tracks. Information within an ISO is designed to contain only computer data.

Accessing an ISO

An ISO disk image is handled the same way as a ProDOS disk image by an Apple IIGS emulator. This means that there is immediate compatibility with existing emulators. Within GS/OS, the HS.FST needs to be installed and it is a good idea to have the HFS.FST as well. The HS.FST can be found on the System Software 6.0.1 System Tools 1 disk in System:FSTs.

From GS/OS, the ISO will show up as a hard disk. The hard disk will show up locked (write protected) if in ISO 9660 format. The High Sierra file system is read-only on the IIGS, even if accessible through a write-enabled medium such as a hard disk.

It should be noted that if mounting a disk with KEGS 0.85 Disk Configuration, it will detect if a HFS partition exists on a hybrid HFS/ISO 9660 image. If there is one, an option is given to choose it or use the whole image (which is accessed as ISO 9660). On a real IIGS, GS/OS would only mount the HFS partition (the HFS.FST must be installed).

There are CD-ROMs which were only created with the HFS file system. When used as an ISO image, the HFS partition must be selected from KEGS. The ISO 9660 portion was never created, resulting in GS/OS being unable to access

The Virtual GS: Using ISO disk images in Apple II emulators



Figure two: A disk image may reveal what an actual disk won't. Here, Finder exposes files on an audio CD.

the whole image.

ISO images mounted as HFS are treated by GS/OS just like a hard disk image. Unlike a real CD-ROM, files can be changed, removed, and added if desired.

ISO extensions

There are a number of popular extensions to ISO 9660: Apple, Joliet, and Rock Ridge, which provide additional compatibility for ProDOS/HFS, Microsoft, and POSIX (UNIX) operating systems, respectfully. The basic enhancements for each contain longer file names and increased support for file types. The HS.FST does not recognize the Joliet or Rock Ridge enhancements. There are some ISO images which require that those enhancements exist, otherwise it will not be readable. Fortunately, most creators provided backwards compatibility to the original ISO 9600 specifications so these can be accessed.

I am not aware of any tool that can detect if an ISO is compatible before trying it out through an emulator. Trial and error appears to be the method to determine if an ISO image will work or not. A patch for the HS.FST is provided later in this article to allow additional ISO images to work.

Another thing that is not easy to identify is the ISO 9660 level which an ISO was created at. Levels 1 and 2 are compatible with the HS.FST. Level 1 is the original ISO 9660 specifications and level 2 adds long filename support. Level 3 allows for file contents to be fragmented. This is not supported by the HS.FST and only identifiable by trial and error.

I ran across no issues making an ISO from level 1 or level 2 CD-ROM disks. In general, I found that the HS.FST was very robust for being fifteen years old.

ISO filenames

The original ISO 9660 documentation specifies that filenames consist of just uppercase letters, numbers, a single period and the underscore character. The format of the name was up to eight characters ending with a period, followed by up to three character extension, with a suffix of a semi-colon and a revision number. For example, TEXTFILE.TXT;1 would be a legal name. Folders and volume names had the same limit of legal characters, but consisted of only up to eight characters-there was no extension or revision number. The High Sierra FST does allow for additional variations which are common on CD-ROMs. Names can be 31 characters in total length. The revision number suffix is optional. Names may start with a period, essentially making the "extension" the entire filename. And no extension is required as long as a name ends with a period. The limitation that does exist is the original ISO 9660 valid characters. The FST will not mount the file system if the volume name has other characters. Directories and files with invalid characters are not accessible.

Figure one shows the Opus II disk with an illegal name of MPW-IIGS, but the directory is open. The HS.FST has been patched on this system. There are two solutions for patching to provide a larger variety of names on ISO 9660 disks for the IIGS. Volume 7, Number 1 of GS+ has an INIT called Dr. Bazyar, patching the HS.FST if it is loaded into memory. This patch allows for 16 additional characters, including the hyphen. GS+ made a conclusion that Microsoft was at fault to allow for illegal characters which is funny since Opus II was created on a Macintosh. There are just bad developers for every computer platform.

An alternative is to manually change the HS.FST using the instructions from Applesoft as seen in Figure three. This provides better compatibility since it allows for just about every single ASCII character to be a part of an ISO name. For example, this includes the tilde character, found on names generated from a Windows system. This patch can also be applied on a real IIGS allowing access to more CD-ROMs.

Enter Applesoft BASIC after booting into the Finder. PREFIX into the System:FSTs folder on your boot drive. Enter the following commands. Be very careful and never modify the original copy of the file.

BLOAD HS.FST,A\$2000,B\$E80,L39,T\$BD				
POKE 8205,32				
POKE 8217,60				
POKE 8221,127				
BSAVE HS.FST,A\$2000,B\$E80,L39,T\$BD				

Figure 3: Patch HS.FST for better compatibility.

Conclusion

Since CD-ROM drives are available on every system that runs an Apple IIGS emulator, there is no reason not to take advantage of using them. Every single Apple II CD-ROM available can be accessed once made into an ISO. ISO images take a few minutes to make, easily expanding the usefulness of any Apple IIGS emulator. In its emulated world, the magic of CD-ROM disks can be explored on an Apple II.

Editor's note: The Opus II ISO image the author mentions in the article is a special, one-of-a-kind image; every other Opus II in the wold is HFS formatted.

Connections: KansasFest by air

KFest by Air

A2 Airlines, that is!

By Tony Diaz

Editor's note: Tony Diaz of Computer Circulation Center is the only person to attend every KansasFest ever held. Tony makes an adventure out of the trip to and from Avila as well as at Avila itself. Join Tony as he makes his way down the Yellow Brick Road to Kansas City, 2003 edition.

Saturday, July 19th.

Day one, 1150 nautical miles to go. Three days to go. The A2 Airliner (also known as Cessna 172) with its 160 horsepower motor will take us to Kansas City. With me are Richard Bennett-Forrest and Andrew Roughan of Sydney, Australia (and Marinetti fame). We depart CRQ (the three letter airport code for Carlsbad, California) bound for the Phoenix area and then onward to New Mexico. We launch out of Carlsbad and begin a slow climb to 11,500 feet. Along the way we pass the Salton Sea, California's biggest lake (and a mistake at that). In 1905, when the Colorado River was rerouted to bring water to the Imperial Valley, flood waters breached the temporary boundaries, causing the rerouted river to flood. The United States government thought it would be gone by the 1920s.

Along the way, Richard has fired up his newly acquired iBook to prepare materials for the celebrity roast of Geoff Weiss. Three hours later, we arrive in Chandler, Arizona, just before sunset, with the intention of getting fuel (and perhaps a bit to eat) and, following a weather check, to leave for Gallup, New Mexico. There's a Holiday Inn at the airport perimeter. We end up staying in Chandler for the night due to some afternoon storms not letting up when forecast. The iBook gave Richard some problems and at the hotel I was able to repair the drive volume with utilities from my PowerBook. Andrew was content with his PowerBook 1400 and Bernie. We called it a night.

Sunday, July 20th

Day two, 900 nautical miles and two days to go. We are aiming for Kansas today. The typical afternoon desert southwest storm activity is forming early in the day. Not much to look at outside-our route is taking us east out of the Phoenix area past the Superstition Mountains along Victor 190 to St. Johns, Arizona, and then into Albuquerque, New Mexico, which is pretty much a direct route from PHX to ABQ-right between restricted airspace and military

Juiced.GS & May, 2004 & Volume 9, Issue 2



The three amigos: From left, Tony Diaz, Andrew Roughan, and Richard Bennett-Forrest.

operations areas. Out in the great wide southwest you have lots of military and restricted airspace areas, and we don't want to become statistics and/or be heard about on the 11 p.m. news. The weather along the route includes lots of isolated storms, at an average of 25 miles across, meaning some slight deviations on the route near ABQ. We are headed for Albuquerque International for a fuel stop and then for Liberal, Kansas after that. We arrive and are greeted by two F-15s-don't worry, they're on the ramp right next to where we are instructed to park. They are preparing for departure–where else can you get a 15 minute air show up close? You won't get this at a highway rest stop.

The weather forecast again is inconsistent with the actual weather. We were nearly boxed in at ABQ and it appeared to be getting worse in all directions—except the one we came from. The Discovery Wings channel caught Richard's attention and I was at the flight planning room pouring over the radar data planning our next flight segment. All of a sudden a dust storm-like blast goes through and 30 seconds later a fury of rain and wind let loose. A frontal wave passed and the airport area was hit. Within two minutes there were four inches of water flowing in the gutters and around the building and the airplane outside was barely visible, so we decided to stay for the next couple hours and managed to move the plane to a secure area. The iBook got corrupted again and this time I decided it was probably a hard disk

Connections: KansasFest by air



Up in the air with food of the Geek gods: Andrew Roughan eats pizza flying the friendly skies of A2 Airlines.

failure so I repartitioned the 40 gigabyte drive into a 10 gigabyte partition and a 30 gigabyte partition and installed everything on the 30 gigabyte partition while we waited out the weather. We decided to stay in Albuquerque for the evening and got a ride to a Best Western about a half mile from the airport. They had Internet, via Ethernet–we were set. I supplied Andrew with a PCMCIA wireless card and shared my Airport connection.

Monday, July 21st

800 nautical miles and one day to go.

Our goal today is Hutchinson, Kansas, with a stop in Liberal and possibly Moscow International Airport if the winds are favorable. After lining up for departure in Albuquerque, we got to go in front of a United Airlines flight.

After a few climbing 360s northwest of the airport we were able to cross the mountain pass along Interstate 40 and head eastward toward Tucumcari, New Mexico and then Dalhart, Texas before arriving in Kansas. Today was our lucky day: air traffic control assigned us a beacon code of 0777 for this leg of our flight. After a couple hours and lots of high mountains, we knew we were coming up on Kansas. The view was unmistakable; either that or we were trapped in the movie Signs. Soon after, there was Liberal below us and finally, Moscow-that's Moscow, Kansas. After a tour of the area, we make our approach into Liberal and fuel up, check the weather and head onward to Hutchinson. That will be about another two hour flight. The weather is starting to pick up but stays manageable-it's just us and clouds for a while. The route into Hutchinson takes us right past the Cosmosphere. After a tour of the area (and my sunglasses flying out the open window while taking a picture) we head for the airport to call it a day. We are now two hours from Kansas City. We plan on staying the night in Hutchinson, as

our last full night of sleep before arriving at Avila. We order pizza and fool around with computers late into the night. So much for plans.

Tuesday, July 22nd

250 nautical miles to go. We gather our stuff and head for the airport and go. We still have pizza too. We arrive in the Kansas City area and I request to do some manuevers to the northeast of the airport area before we land. The destination: the skies over Avila. We make our presence known with a few orbits of the campus and then head toward Johnson County Executive airport in Olathe. Kansas City here we are! Getting there was half the fun... the other half is the return flight.

Sunday, July 27th

After saying goodbye (and not even being the last ones out of Avila-close, but not last), we head to the airport. Our journey is a short flight to Topeka, our destination: the Combat Air Museum at Forbes Field. We arrive in time to get a motel and attempt sleep, which shouldn't be so hard-we've had nearly a week without much.

Monday, July 28th

We find our way back to the airport after breakfast and view the Combat Air Museum and head for Hutchinson, Kansas. We pick up a rental car at the Hutchinson airport and head for the museum across town, and to secure a hotel room somewhere. As it turns out, Hutchinson is the host of the World Cup of Little League Soccer and there is not a room to be found anywhere in town. The same thing happens every year, and since our schedule is not set in stone I've hesitated to make a reservation. We eventually find a room in downtown Hutchinson and get in, turn on the air conditioners, and set off for the museum. The Cosmosphere simply cannot be beat; I think it's even more fun than the Smithsonian Air and Space Museum. You can get closer to things (and even touch some-if re-entry didn't harm it, I don't think anything can). After they kick us out of the museum we go for dinner at Pizza (the) Hut.

That night after dinner, the weather did not look so good toward the southwest; within two hours it was raining; then the wind picked up and the third torrential rain of our trip unleashed. I even went back out to the airport about 2 a.m. because I could not sleep wondering if the plane was still where we left it.

Tuesday, July 29th

Back to the Cosmosphere for a while before we leave for Liberal, Kansas. We arrive at the airport and while the airplane is fueled and I check the weather, Richard sneaks more sleep. While at the Cosmosphere we discover that Liberty Bell 7 is in downtown Phoenix on display-that just happens to be on our way back. We make it a point to stop

Connections: KansasFest by air



View from above: The Apple II Mecca, Avila University in Kansas City, Missouri

and visit. We depart for Liberal and the ride was a bit interesting as we passed the remainder of the storm front that passed though the area the night before. The arrival into Liberal was preceded by rain. We got a motel on the edge of town where there were lots of trucks. It seemed like the truckers let those things idle all night (and even stay in them–I wonder why they go to motels at all). But once we're inside and the door closes and the air conditioner goes on we don't hear the trucks anymore. More rain comes and we mess around with the computers for a little while. There is no Internet and useless cellular phone coverage.

Wednesday, July 30th

Breakfast time and then off to the Liberal Air Museum. The Liberal Air Museum is packed full of all kinds of aircraft and miltaria. Aircraft are parked and hanging throughout most of the WalMart-sized building. After spending most of the day in Liberal we depart for Pueblo, Colorado, but not without buzzing by Moscow again. We tour a bit of southwestern Kansas from a low altitude before climbing for the flight to Pueblo. Arrival in Pueblo greeted us with several C130s and a KC-10 doing touch and gos.

Thursday, July 31st

The morning takes us to the Pueblo Air Museum and B-29 Museum. This is an indoor and outdoor display of mostly mothballed aircraft, but with lots of memorabilia, it's an interesting collection. After spending most of the morning there the weather once again decides to play havoc with us. We make it as far as Albuquerque and call it a night; the same Best Western (with the Internet access) is our destination. When we finally get to our room the Ethernet does not work-we had to move to a different room. Once again, more rain. Off to bed.

Friday, August 1st

We're down to the wire-this is it. After breakfast we head for the airport and plan the route to Phoenix; this time we will be landing at Phoenix Sky Harbor International. The FBO we stopped at in ABQ also has a location at Sky Harbor and they were very small-airplane friendly. Besides, Sky Harbor airport is practically downtown, near the Science Center where we want to go. After an interesting flight of threading the needle with storms, we arrive on the outskirts of Phoenix and re-establish contact with Phoenix Approach (I had lost radio contact near St. Johns, Arizona). Halfway there. I was thinking of asking them for a practice instrument approach into Sky Harbor but figured I better not-I don't want to annoy the controllers. A couple minutes later the controller asked me if I could intercept the ILS for Runway 24L; as I'm asking Andrew in the back to find the proper book of information I answer back, "Cessna three-whiskeyxray, affirmative" and I dial in the frequency on the navigation receiver and track the needle inbound for the next 40 miles. If we had been a jet, that would have taken all of about 5 minutes; instead we followed that for the next 15 minutes. Once we got there we were able to get to the Science Center and had about an hour to view the exhibit, after which we walked around the downtown area for a little while and then called for a ride back to the airport. While they fueled up the plane we checked the weather and I saw that we were going to have to head mostly south-southwest out of the Phoenix area toward Yuma into California to get past a small storm front and then back northwest to Carlsbad.

For more on Tony's adventure to KansasFest 2003, point your World Wide Web browser to:

http://www.apple2.org/KFest03/



The things you see on the Yellow Brick Road: One more piece of aerospace history that you can find as you make your way to Kansas City.





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KFest starts on Tuesday evening with an informal trek to dinner off campus and Wednesday we have an outdoor cookout on the grill. Wed. afternoon through Friday afternoon are various sessions and contests spread between meal times and sleepless nights. On Friday night we have our annual celebrity roast and this is not to be missed! Saturday features a Vendor Fair that is open to visitors and attendees to sell, swap, give away things.





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Outback emulation: The Great State of Emulation

The Great State of Emulation

By Richard Bennett-Forrest



Figure one: A simplified model of a V8 engine serves as an introduction to the concept of a state machine.

Well, time to get back to the business end of emulation, with this issue seeing us delving into the world of state machines. However, I will use the remaining few sentences of this opening paragraph to let you know that IBM has released a Java Virtual Machine adapter for their zSeries mainframes. This is a plug-in card which has an onboard processor for the Java instruction set. Timely, as we were discussing last issue how Java wasn't a real machine. Well, now it is, so another of our excuses goes out the window.

I should also mention, if I'm not beaten to it on A2Central.com somewhere, that Andre Horstmann and Henrik Gudat just posted messages on the Bernie web site in the last few days of my writing this. Have our K9 friends come up for air? Or have they taken the "extending the Apple II" challenge which we threw down in the last issue?

Right, so now we have the source code to our favorite Apple II emulator, perhaps even the one that we wrote ourselves over the past two years, and we now want to extend it. We took a course in the language it is written in, we conveniently ignored the license which came with it restricting our rights to adaptation, and we've just installed Off Off Firing Exit/Several millisecond timeout

Figure two: A slightly more complex–and accurate–version of the V8 engine as state machine.

and configured the appropriate compiler. What happens next?

Well, there are really two ways to extend the functionality of the Apple II-by implementing new features that just work, completely oblivious to the software running on it, or by implementing features that Apple II software must know about before it can be used.

Examples of the former are things like tying together the Apple II and host machine's clipboards. Bernie and Sweet16 both check the Apple IIGS clipboard for content and automagically exchange them as appropriate. Support for USB keyboards and mice is another example, they just work because they're part of the host machine's input API. These types of features bring modern technology to traditional hardware already supported by the Apple II, so disk drives, keyboards, the clipboard-they're all standard Apple II fare, only the underlying technology has been upgraded.

The second type of extension to the Apple II is that which software must be aware of before it can do anything with it. An example would be a new graphics mode. Quickdraw II in the Apple IIGS (or some form of custom code) would need to be

Outback emulation: The Great State of Emulation



Figure three: A subject close to the author's heart, TCP, serves as another example of a state machine.

written to support it. Apple II software would need to be able to detect that it is running on an emulator, detect the type and version of the emulator, and detect whether that emulator supports that extension to the Apple II architecture.

So, it sounds like the first bit of code we need to write is a way for Apple II software to detect its operating environment.

Luckily, or unluckily as we'll soon see, there is already a method for doing this. The Bernie guys defined a hardware register which can be read to tell if your code is running inside an emulator. Unfortunately, though, they fell foul of an old Apple II trick, making the register not the simplest of features to implement. But before we discuss that, we need to do some revision on stateful and stateless logic. I bet you thought we were past all that academic stuff, right?

"State", as you can probably guess, is "the state of a machine at a particular moment in time". So for example, a V8 engine has two obvious states, "off" and "running", and we refer to it as a "state machine". Perhaps not the best of examples, but an example nonetheless.

The whole point of a state machine is that you send it events, and depending on the order and type of event, the state machine will change states. From a coding perspective, this is great, because you don't need to remember what the "state machine" is doing, you just need to send it events. The state machine also usually has other code modules sitting behind it that do the real work, meaning the state machine

Juiced.GS & May, 2004 & Volume 9, Issue 2



Figure four: Use of a state machine to detect a Bernie or Sweet16 emulated environment.

in many ways is an API.

Getting back to the V8 example, we have our two states, "off" and "running". Now we need to know what events it can receive, and again there are two main ones: "spark" and "no spark". The spark plugs provide the spark which ignites the fuel, and ultimately determine whether the engine is running or not.

The UML (Unified Modeling Language), which we talked about at the beginning of this series, has a diagramming model for state machines, and you can see a simple V8 engine modelled in figure one. There are two states, "off" and "running", and there are two events, "spark" and "no spark". This isn't actually how an engine works, of course, but it gives you an idea of what a state machine looks like.

In an engine, the spark actually causes a brief "transition" from off to running, with the running state only lasting for several milliseconds. You can see this more accurate state machine in figure two.

So what state machines are there in the Apple II? Well, the IWM is a state machine. It transitions between read and write modes, has a head stepping state machine, and the individual read/write registers also have their own state machines. Programmers simply send an event to the IWM, and it does what it needs to transition between the various states.

In the case of writing a byte to disk, your code first turns on write mode through a number of soft switch toggles. These switches are a state machine, and must be switched in the correct order. Once the IWM is in write-ready "state", you send it a byte to write to disk. The IWM transitions through several states as it writes each bit to disk. Once complete, it returns to the write-ready state and will accept another byte.

This all sounds a bit complex-wouldn't it be easier to just say, "write this byte to disk"? Sure it would, but when the IWM was developed, it was easier to design and cheaper to build by making it work like a state machine.

State machines help to make complex systems look simple. What happens if I try to write a byte to disk while the IWM is already writing one? Put a conditional inside the IWM saying "if programmers tries to send me another byte,

Outback emulation: The Great State of Emulation

sep \$30	
sta >\$00/C04	4F ;Activate the Bernie/Sweet16 test
lda >\$00/C04	4F ;Get the ID byte
cmp #\$FE	;ls it Bernie?
bne notBern	;−> no
lda >\$00/C04	4F ;Get Bernie version number
cmp #\$20	;Is it at least version 2.0?
blt notBern	;-> no

* It's Bernie 2.0 or greater

... do extra stuff ...

notBern rep \$30

Figure five: 65c816 code that detects Bernie or Sweet16 emulated environments.

reject it"? You'd have to put that conditional throughout the IWM. How about if the IWM was supposed to reject the current byte mid-write and start writing the new byte, how much code must we write so that it knew how to abort the current write and start all over with the new one? In a state machine, it is easy.

For example, when the IWM is in "writing byte to disk" state, there are two events which will cause it to transition to another state. When the write is finished, it will transition to the "write-ready" state. When the programmer tries to start writing another byte, it transitions to "start writing byte" state. Think of a state as a code module: all it needs to know is the logic required while in that state, and which state to pass control to when it receives certain inputs. This way, different "states" can be written by different programmers, because they don't really need to know how the other states work.

TCP is another example of a state machine. If you've done any work with TCP, you'll know its ten states. These are CLOSED, LISTEN, SYN_RCVD, SYN_SENT, ESTABLISHED, CLOSE_WAIT, LAST_ACK, FIN_WAIT1, FIN_WAIT2 and CLOSING; this state machine can be seen in figure three.

State machines have the advantage of reducing complex and random event patterns into easily understandable and programmable logic. The disadvantages are that they need to remember what they are doing; this means having a lot of internal variables, state transition handlers, and the actual state handler code. If you're building it in hardware, these problems virtually go away because of the way electrical signalling works. In software, the code and variable overheads typically don't justify the cost unless there's at least three or four states and events.

So, state machines are "stateful", because they have state. If coded correctly, you can save away the "state" of a state machine, and restore it again later, meaning that you can now very easily preserve the way complex event systems behave. Code which doesn't preserve state, is called "stateless". Every time you call stateless code, it thinks you're calling it for the first time. Most subroutines are stateless, as is the Web, although cookies and hidden form controls allow Web sites to pretend that they are stateful. Don't be fooled, they're not.

Most of the chips inside the Apple II use a form of state machine, due to the way electrical signals are used to send "events" to them. Unfortunately, however, because of the size, complexity, and cost of simple programmer interfaces to them, in the early days of microcomputers, the chips simply exposed their state machine to the programmer. As in the IWM example, a simple API would have been better for programmers, but ultimately the Apple II interface to it would likely only have to be written once, allowing the one off pain and suffering to save Apple the time and cost of a better API.

Unfortunately, us Apple II folks tend to take the state machine interface perhaps a little too far. We do this because that's the way much of the Apple II works.

Getting back to detecting an emulator from software which is running on it, what you need is pretty much just a flag which says "yes" or "no". The default would have to be "no", so that code running on a real Apple II would know that it is not an emulator.

Apple II Technote 201, written by Eric "Sheppy" Shepherd, explains the way Bernie and Sweet16 emulator detection works. Geoff Weiss has also implemented this in KEGS, although I'm not sure how it's been implemented, as Technote 201 is customized for Bernie and Sweet16. You can see the state machine diagram for it in figure four.

There are several problems with it, however; for starters, it isn't immediately obvious what happens if you write to it when in "Test state one". Secondly, the code inside the emulator which handles the detection is basically a state machine, and is called indirectly by the MMU when it detects store and load instructions which affect location \$E0/C04F. This means overheads in the MMU, and the detection logic needs maintain its state, being effectively a virtual emulated chip in its own right. Finally, the tech note only provides for identification of Bernie or Sweet16.

Figure five shows the 65c816 code required to detect Bernie using this technique.

Well, we're just about out of space for this issue. Next we'll discuss a better detection technique, one that will work for all emulators, and is easier to implement, although perhaps you've thought of one already? We'll also take a look at calling code on the host machine, and how to use that to finally extend the Apple II.

Noted Apple II programmer Richard Bennett-Forrest takes Apple II emulation enthusiasts behind the scenes with his regular Juiced.GS column originating in Sydney, Australia.

Cover) Cover: Dungeons and Dreamers

Review: Dungeons and Dreamers

Authors: Brad King and John Borland Length: 273 pages MSRP: \$24.95 ISBN: 0072228881 Released: August 2003 Publisher: McGraw-Hill Osborne Media

By Ken Gagne

A recent comic strip featured a computer maven bemoaning: "It really depresses me, what's happened to the Internet: all these people got on it."

It's true that technology and cyberspace have grown from their original niches into a more mass appeal. The trends and trendsetters that advanced our medium into common acceptance are detailed in *Dungeons and Dreamers: The Rise of Computer Game Culture From Geek to Chic*, a hardcover by Brad King and John Borland.

Dungeons and Dreamers has a simple, effective presentation: a small collection of black-and-white photos bisect the book, but the text is otherwise straight and uninterrupted across its ten chapters and three sections. The history reads easily and is organized neatly, with main characters quickly remembered and usually contained in their own story; should they reappear later, the authors often provide a reminding detail or two.

Dungeons and Dreamers focuses heavily on three games–Ultima, Doom, and Quake–and their creators–Richard Garriott, John Romero, and John Carmack. Other industry players, such as Gary Gygax and Will Wright, make appearances, but without warranting the multiple chapters the main trio net.

Likewise, the authors propose that a confluence of three influences in the Seventies produced modern gaming culture: the rise of Dungeons and Dragons; the popularity of Tolkien's *Lord of the Rings* novels; and the introduction of personal computers. Certainly these three factors bore heavily on Richard Garriott, otherwise known as Lord British, whose tale is told from the founding days of Akalabeth, to Ultima IX and the groundbreaking Ultima Online, concluding with Garriott's current works-in-progress. The social and networking aspects of Dungeons and Dragons, Quake, and computer networks is a repeated theme throughout.

King and Borland's research for this book included personal interviews, experiences, and literary review. Yet they successfully resisted the temptation to cram in as much minutia as possible, instead focusing on the main characters and their stories. Occasionally, the authors exemplify the impact of these cultural evolutions with detailed accounts of regular gamers; their stories are often, but not always, impressive, informative, and relevant. The authors occasionally end these chapter by connecting this fragment of history to its larger, modern implications, eliminating the primary, historical figures as peers and reminding us that they are gods among men.

Veterans of the industry will enjoy the details of this jaunt down memory lane, which includes many names they may not have heard in years, such as Ken and Roberta Williams (of King's Quest fame), The Sierra Network, Warren Spector, and Softdisk (John Romero's one-time employer). But as the narration progresses, Apple II users will find less relevance to their own history, as it wends its way from gaming culture's origins on our favorite computer, to its eventual emigration to Windows and the Internet.

The occasional detour also presents itself, such as a comparison of the parallels between the moral panic over violent video games, and that of comic



books in the fifties. And though the prologue points out this book is, as the title states, about computer, not video, game culture, there is a closing chapter about the present-day networking capabilities of consoles such as the Microsoft Xbox and Sony PlayStation 2.

The index is not exhaustive—look up "Apple" and there's no entry, as the company itself is never mentioned. Not being gamers, nor were Jobs and Wozniak among those profiled. But the Apple II was the environment in which many of history's greatest game programmers came into their own, and their names and stories in this book will be familiar and enjoyable to many who shared that era and hardware with them.

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Juiced.GS Associate Editor Ken Gagne reads, writes, and plays video games in his home state of Massachusetts.

DumplinGS: News from the Apple II world Non-stop fun in the midsummer sun: KansasFest 2004

One Steve W. follows another-for the latest news on the Apple II event of the year, keep reading as we fill you in on the non-stop fun on its way for those who'll be calling Avila University home for a week in July, and as we pass around another plate of DumplinGS...

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KansasFest 2004 is just on the horizon for Apple II users all over the world. While the 2003 event is a tough act to follow, the 2004 event will again feature some great events and fantastic speakers.

Speaking of tough acts to follow, Steve Wozniak, the inventor of the Apple II and last year's keynote speaker, will be followed by another Steve W. Noted Apple II historian Dr. Steven Weyhrich of Omaha, Nebraska, will be this year's keynote speaker.

On the lighter side of things, Dave "The Man" Miller, the technical wizard behind Syndicomm's Apple II operations will be the target of honor at this year's version of the Apple II celebrity roast.

Traditional contests this year will include Door Sign, Roger Wagner Tie One On tie contest, Apple II Jeopardy, and others. Fun events are likely to include the KFest Kookout, Bite the Bag, Movie Night, Krispy KremeFest, and the Vendor Fair.

KansasFest 2004's headline sponsor is InTrec Software, makers of ProTERM for the Apple II and Macintosh. The KansasFest Committee is headed by The Big Cheese, Cindy Adams. For more information, check out the World Wide Web site at:

http://www.kfest.org/

or see the advertisement elsewhere in this issue of Juiced.GS.

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Speaking of Woz, the Apple II's legendary creator will be a keynote speaker at the Fifth HOPE-the fifth Hackers On Planet Earth conference in New York City, New York. The conference will be held at Hotel Pennsylvania in New York City from July 9th through July 11th, 2004. Registration is only \$50 (but does not include meals or lodging). HOPE is sponsored by 2600: The Hacker Quarterly, a quarterly magazine dedicated to various topics in technology. For more information or to register for HOPE, see:

http://www.the-fifth-hope.org/

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Yet one more computing show in July: Vintage Computer Festival East 2.0 is being held July 16th and 17th, 2004 at the Boston campus of Sun Microsystems. Juiced.GS is currently working very hard on being in attendance (and having a vendor's booth) at this event, so drop by and chat if you're in the area. Admission is \$10 per day for full access (children admission is free of charge, and so is parking), but housing and meals are not included.

For more information on VCF East 2.0, please see their World Wide Web site at:

http://www.vintage.org/

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Europe's leading Apple IIGS programmer, Ewen Wannop of Spectrum fame, is moving his World Wide Web site to a different server. With the same content as before, Wannop's Apple II home on the World Wide Web can now be found at:

http://homepage.mac.com/speccie/

Wannop's primary electronic mail will also be changing to speccie@mac.com.

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Juiced.GS regrets to inform the Apple II community of the passing of Silas Warner, an early Apple II programmer and gaming pioneer. Warner passed away on February 26, 2004. Warner's work inspired many of today's great game programmers to create the fantastic programs we see today. The original Castle Wolfenstein and Beyond Castle Wolfenstein were among Warner's best known works. Our conndolensces to the entire Warner family.

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The busy bodies at Syndicomm (the parent company of Juiced.GS) have been at it again. This quarter they have made available individual issues of both the 8-bit and IIGS versions of Softdisk at the Syndicomm Online Store, for those of you who want a particular program or individual disks rather than getting the entire collection on CD-ROM. Syndicomm also was host to a guest chat featuring Apple II legend Morgan Davis, arranged by A2 Real Time Conference

DumplinGS: News from the Apple II world

Manager Kirk Mitchell. Finally, Syndicomm's award winning A2Central.com World Wide Web site recently added an "Apple II Deals" section for the discriminating Apple II shopper, edited by long-time Apple II fanatic Sean Fahey.

For more on Syndicomm, check out:

http://www.syndicomm.com/

For more on A2Central.com, see:

http://www.a2central.com/

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Apple IIGS programmer Kelvin Sherlock, best known for the addicting GShisen game, has released a couple of Internet utilities for use with Marinetti.

if config is a simple command line utility for use with GNO or ORCA shells to connect or disconnect TCP/IP connections.

Marlene is a Marinetti-based telnet application with color VT100 terminal emulation which also requires GNO or an ORCA shell.

To get these Internet utilites, point your World Wide Web browser at:

http://www.syndicomm.com/~kws/iigs/

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Dr. Ventzislav Tzvetkov has done it again. The author of MazezaM has released another Apple II game, this one called BoxWorld, which is a clone of the classic computer game Sokoban. The freely available game (including source code) can be found at this World Wide Web site:

http://drhirudo.foronlinegames.com/

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The Macintosh news site MacMinute announced in April that the Apple II will be on display at "The History of Video Games" museum at the Electronic Entertainment Expo, also known as E3. E3 is an annual event held in Los Angeles, this year at the Los Angeles Convention Center on May 12-14. Billing the Apple II as a "precursor to today's popular PC gaming systems", the museum's 2,000 plus square foot display will look deeply into the history of video games.

For more information on E3 2004, check out:

http://www.e3expo.com/

For the original MacMinute news item, see:

Juiced.GS & May, 2004 & Volume 9, Issue 2

http://www.macminute.com/2004/04/07/gamemuseum

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Very minor updates on the Mac OS X emulation scene: Virtual][, the Mac OS X 8-bit Apple II emulator is now at version 2.6 and KEGS for OS X is now at version 1.9.

For Virtual][, point your browser to:

http://www.xs4all.nl/~gp/VirtualII/

For more on KEGS for OS X, see:

http://casags.net/

A Word or II

Funeral for a Friend By Ken Gagne

There is an empty chair, at KFest this year. A hallowed place where a friend once brought cheer. The click of his mice, my ears long to hear. Or perhaps it would suffice, if he should suddenly appear. With laptop in hand, and a box of Krispy Kremes to share. All his friends would stand, as he sat in the empty chair. I hear his voice a-callin', and it ties my heart in a knot. For he cries, "Though a comrade has fallen, You must persevere for those who cannot." We built communities on the run, he and I in the name of fun. And as others may come and go, I make both friend and foe. But what I long for most, is our past now long a ghost.

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With credit to Jolly Blackburn's "The Empty Chair: Eulogy for a Gamer"

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Juiced.GS Associate Editor Ken Gagne waits for Editor-in-Chief Ryan Suenaga to show up for this year's version of Geek on the Road.



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