Spectrum Internet Suite

The Apple II And The Web

Apple II owners have had access to the Internet's world wide web since virtually the day it went public three long years ago. All it takes to surf the web using an Apple II is a fast modem, a telecommunications software program that supports VT-100 emulation (such as AnsiTerm, Pro-Term, or Spectrum), and either a dial up Unix Shell account with an Internet Service Provider or an account on the Genie or Delphi online networks.

Once online, Apple II owners can run the lynx web browser and be surfing the web in seconds. Lynx – a program which resides on your Internet Service Provider's computer system, not on your Apple II – provides a speedy and efficient way to access the world wide web. Lynx is text based, and that is both its greatest strength and its greatest weakness.

With lynx, it's possible for Apple II users to retrieve and view any and all text based content from the world wide web, download platform independent graphic and sound files, and download Apple II and IIGS software from the numerous Apple II software archives available on the Internet. And, make no mistake about it – lynx is the fastest web browser in existence! However, lynx is limited in that it uses the text screen to display information. Yet the world wide web contains so much more than just plain ASCII text files.

The web is gradually being transformed into a hypermedia based global playground, schoolroom, and library that contains just about any and all information you could possibly want or imagine. The world wide web is even starting to change the way many of us work and play. And, that's been both a blessing and a sore spot for many Apple II owners.

In the past year or two, there has been a proliferation of easy to use mouse driven, graphic based programs released for Mac and PC platforms that makes surfing the web a sheer joy. Even the most avid of Apple II lynx users would probably make the switch to Netscape or Microsoft Explorer, if only they could. But, there are no IIGS versions of those programs available, and it is unlikely that there ever will be.

Over the past few years however, Apple II owners have heard snippets of information and rumors about Derek Taubert's IIGS based TCP/IP project, and many of us have had high hopes that Taubert's GS/TCP project would eventually evolve into a full and complete set of IIGS based Internet programs, one of which could easily be a graphic based mouse driven web browser.

When Taubert's GS/TCP project is eventually released, it will permit a IIGS to make a SLIP or PPP connection to the Internet, thereby allowing an Apple IIGS computer to connect to and talk with other computers on the Internet in much the same manner that a Mac or PC can today. There's only one slight problem: it's been almost two years since Taubert announced that his full suite of Internet tools was nearing completion and was almost ready to be released. But, two years in the computer world is like a lifetime, and many Apple IIGS owners have simply given up hope that we'd ever have a Netscape like web browser program.

However, unknown to most Apple IIGS users, a small and secretive group of programmers have been hard at work on an alternative web browser ever since KansasFest '96, and the result of their hard work is Spectrum Internet Suite or SIS for short. Quite simply, SIS is the most exciting, fantastic, spectacular, mind boggling, stunning, wonderful and phenomenal program ever created for the Apple IIGS!

How SIS Started

At KansasFest '96, Dave Hecker of Seven Hills Software had a meeting with Ewen Wannop and Richard Bennett to ponder and discuss the future of Apple IIGS telecommunications. Almost by chance, Tim Buchheim, one of Genie's A2Pro sysops, was there and when the subject turned to the world wide web, Tim asked the question that would forever change the Apple IIGS: "Why do

we need TCP/IP to write a web browser?"

Why indeed?

A realization dawned on Dave Hecker: "When a Mac or PC connects over a modem to establish a TCP connection, that's a serial connection, with one byte at a time being sent or received."

That realization led to a new perspective; perhaps there really might be another way to provide IIGS users with a web browser. After all, Ewen Wannop's Spectrum program was already allowing IIGS owners to connect to the Internet, and Richard Bennett's recently updated serial port drivers for Spectrum proved that Spectrum could already process large amounts of data passing through the IIGS serial port.

Approaching the problem from an entirely different perspective than ever before, the Seven Hills team came to the conclusion that since all home pages on the world wide web are essentially just ASCII text files, there was no reason on earth why Spectrum couldn't be modified to become a web browser.

The Seven Hills team discussed their observations with fellow Apple IIGS user Geoff Weiss, a System Administrator for a Washington, DC area Internet Service Provider, and Geoff confirmed that what Ewen and Richard had proposed was entirely feasible, practical and possible to achieve using Spectrum.

Before KansasFest ended, Ewen Wannop decided to write a web browser display for Spectrum. Dave Hecker of Seven Hills Software agreed to lead and

coordinate the SIS project. Tim Buchheim agreed to provide technical programming tips on how to create a web browser that doesn't use TCP/IP. Richard Bennett, whose recent experience writing the Spectrum port drivers gave him an intimate knowledge of telecommunications, agreed to assist as a technical consultant. Finally, Geoff Weiss, with his skilled and well informed knowledge of how the Internet works, was recruited to develop the set of sophisticated Spectrum scripts that slowly evolved into Spectrum Internet Suite. And, the SIS team was off and running.

Afterwards, Ken Lucke, who had previously written some sophisticated Spectrum scripts, was recruited for his expertise and knowledge of Spectrum. By early January, 1997, the SIS team was expanded to include beta testers. KansasFest organizers Cindy Adams and Tim Kellers came on board, followed by David Kerwood and by mid-January, 1997, Max Jones of Juiced.GS and I were recruited to join the beta test team.

Geoff Weiss had already set up an Internet based mailing list system that allowed the SIS team to stay in constant communication via e-mail, and it was through that mailing list that bug reports were submitted, new features were suggested, and new revisions were distributed.

By the time Max Jones and I joined the SIS team, there had already been more than 25 updates to Ewen's web browser and to Geoff's scripts. The day we joined the team, we were e-mailed an update to Spectrum that updated the KansasFest '96 version of Spectrum v2.1 to

the v2.1 release version. We also received Ewen's latest version of the web browser, Geoff's latest set of scripts, and an assortment of monospaced and proportional bit-mapped fonts, as well as a font for displaying "dingbat" style symbols.

As I downloaded all those components, I really had no idea what to expect. I speculated and imagined that SIS was probably just a fancy front end for the lynx web browser. In any case, my imagination just never prepared me for the amazing journey that awaited me, and that will await you when you start using SIS! In the first 24 hours of testing SIS, I was so amazed and stunned by what I saw that I forgot to eat breakfast and lunch, took only a short dinner break, and managed to spend 18 hours surfing the web before calling it a night at 2 AM. Quite frankly, I'd never before been so impressed with a IIGS software program as I was with Spectrum Internet Suite. I was instantly hooked on SIS!

Spectrum Internet Suite is clearly the most important and sophisticated program ever created for the Apple IIGS. SIS is destined to stem the tide of those Apple IIGS owners who opt to purchase a Mac or PC just to surf the web. SIS has breathed new life into the computer that we all love. Who needs Netscape when we have Spectrum Internet Suite?

Spectrum

Spectrum Internet Suite, as its name implies, is an integral part of the Spectrum v2.1 telecommunications program. Spectrum was written by Ewen Wannop and it had initially been released by Seven Hills

Software in late 1993. It has already been updated several times, with each update offering new and powerful features; the latest update was released at KansasFest '96.

Spectrum is a remarkably full featured program that operates under GS/OS and employs the friendly and familiar IIGS desktop interface. Spectrum allows IIGS owners to use their modems to connect to local Bulletin Board Systems, online networks and the Internet. Then again, all Apple II telecommunications programs do that. But, it is because Spectrum is GS/OS based, it is in a class of its own. In addition to having pull down menus and the ability to speak and playback sounds, it supports a full range of file transfer protocols, sports a full featured text editor, has amazingly powerful scripting capabilities, and ever since the release of Spectrum v2.0, it supports XCMDs (which is shorthand for External Commands).

Spectrum's XCMDs, similar in design and function to those found in HyperCard or HyperStudio, are add-on files containing programming code that allow Spectrum to be expanded way beyond its original capabilities. By offering support for XCMDs, Spectrum can provide any number of new and useful features to be introduced into the program; features that can easily be activated once the user copies a new XCMD file into Spectrum's XCMD subdirectory. In fact, because Spectrum was released before the world wide web was even publicly available, it is Spectrum's ability to support add-on XCMDs that allowed it to be modified for use as the world's first Apple IIGS web browser.

Spectrum Internet Suite

SIS was created, in essence, by building onto the power and strength of Spectrum and its associated plug-in XCMDs and Displays. SIS combines a new Browser XDisplay with a new WindowManager XCMD and an updated Database XCMD, along with a powerful set of Spectrum scripts that will allow you to surf the world wide web on your IIGS, using your mouse as your guide.

SIS will let you surf the web if you have an account on the Genie online network, or a dial up Unix shell account with an Internet Service Provider; SIS does not work with any other type of Internet connection! All the files you need to surf the web are included with SIS, and they are all Apple IIGS files that are needed by Spectrum. In other words, there are no files that need to be copied to your Unix home directory on your Internet Service Provider's computer system.

Spectrum Internet Suite requires a IIGS running System 6.0.1, Spectrum v2.1, 4 megabytes of RAM and preferably an accelerator and a hard disk drive. An accelerator and hard drive are not strict requirements, but SIS and all other Apple II programs run so much more efficiently when you have both connected to an Apple IIGS. Lastly, you'll need the fastest modem you can afford and, if that modem is 9600 baud or greater, you will need to connect it to your IIGS with a properly wired hardware handshaking cable.

Setting Up Spectrum

If you've never used Spectrum

before, you'll first need to run Spectrum's Installer program to personalize your copy of the program. The Installer will also copy all of the files from the several 3.5" disks that Spectrum comes on onto your hard disk drive; the program manual provides instructions on how to install Spectrum to 3.5" disk.

First time users of Spectrum are advised to spend some time reading the "Getting Started And Reference" manual. Those already familiar with other Apple II telecommunications programs can comfortably dive right into Spectrum, and if there are any questions about Spectrum's terminology or use, most of those can be answered from right within the program by consulting with the !Help! New Desk Accessory based online help system which is found under the Apple Pull Down menu; the !Help! NDA is a remarkable freeware release from Seven Hills Software that makes it easy for GS/OS programmers to add a help and information retrieval system into their own software. For the most part, experienced Apple II modem users should have no problems at all when making the switch to Spectrum from any other telecommunications program.

Before you can actually go web surfing, you'll need to set up both Spectrum and SIS. In order to go online with Spectrum, you'll first need to access a few of Spectrum's Pull Down menus in order to configure Spectrum to your system, and to your personal preferences. Under the Settings Menu, you'll have to access the Port settings options and the Online Display options.

On the Port options screen, choose the baud rate of your

modem; if there is not an exact match (as is the case with 14.4 modems), just choose the next highest speed. Since a hardware handshaking cable is required for high speed modems, those who have a 9600 baud or faster modem should make sure to add a checkmark next to the options "H'ware Handshake" and "DCD is valid" on that same screen. Additionally, with a hardware handshaking cable installed, you can also uncheck the XON/XOFF option and you'll experience a slight boost in performance.

The Online Display option screen allows you to instruct Spectrum which display mode you want the program to use whenever it's first started. Feel free to choose the Spectrum SHR display. There are also several preferential options available that let you choose which of Spectrum's optional features you'd like to use.

The last thing you'll want to do before going online is to access the Phone Pull Down menu so that you can set up an automated dialing list of all the online services you call. As you set up your dialing list, you'll notice a button named "SET." If you click on that button, you'll be able to change the Initialization String that Spectrum sends to the modem in order to activate it. Existing Spectrum users will not need to change their current Init String, and new users will not need to change it if the default one works with their modem. However, during the beta test phase, I found that when using the default high speed modem Init String, I was unable to connect at any baud rate higher than 9600. So, Geoff Weiss suggested changing the default init string to:

AT&F&C1&D0&K3X4W1L1

Once that new Init String was entered, I was able to connect at 14.4 on my LineLink, and Max Jones was able to connect at 33.6 on his Boca FastMac modem. Chances are, then, that if you are unable to make a connection at the highest speed your modem can achieve, this generic Init String should work just fine with your Hayes compatible high speed modem.

Once you've taken the above steps, go online with Spectrum to make sure that everything is set up to your liking. Once you've done that, it's time to install SIS.

Setting Up SIS

The installation of SIS will be accomplished via Spectrum's scripting capabilities. Those installation scripts will copy all of the necessary SIS files to your hard drive and will place them into the Spectrum directory or subdirectory.

The installation process will be copying the SIS font files into your System folder and placing them in the Fonts subdirectory. It will be copying the new Database and WindowMgr XCMDs into the Add.Ons folder and placing them in the XCMDs subdirectory. It will also copy the Browser display into the Add.Ons folder and place it into the Online.Displays subdirectory. Lastly, it will copy all the scripts to the Spectrum.Scripts folder.

You'll now be ready to go online. Dial your Internet Service Provider or Genie using Spectrum. At the UNIX prompt, or from anywhere on Genie, run the Start.SIS script from the Script

Pull Down menu or by pressing the keyboard equivalent "Open-Apple R" command.

The first time you run SIS, you will need to set various preferences. The Preference screen that you see when you first run SIS prompts you for your Network Connection type (UNIX or Genie). The rest of the items can be left at the default settings.

Once you've done that, you'll next want to click on the Option Pull Down menu and access the E-mail Preferences item. There you will be asked to supply your name, your e-mail address, and the name of your "SMPTServer." An SMPTServer is simply the dedicated server that your Internet Service Provider uses for incoming and outgoing e-mail. In many cases, the name of the server is in the format of "mail.ISPname.com". As an example, the name of my Internet Service Provider is crl.com, so I entered "mail.crl.com" as the name of my SMPTServer. If you are unsure, you can always send an e-mail to yourself and look at the header information, as that will include the SMPTServer name; alternately, you could simply call your Internet Service Provider's technical support hotline.

Please note that SIS does not work with Genie's e-mail system, so e-mail can only be sent from within SIS by those who have a standard dial up Unix Shell Account.

Using SIS

Probably the easiest way, and certainly the most enjoyable, to learn about SIS is to just start using it. When you first run it, it will be set up to automatically access the Spectrum Internet

Suite home pages on the Seven Hills Software web site which is located at the following URL:

http://www.nettally.com/ shss/IIGS/sis/

On that SIS page, you'll find information about SIS and lots of Apple II related links, just waiting for your mouse clicks to transport you to sites around the world.

As you look at world wide web sites, you'll see active links that are highlighted in either yellow or green. Double-click on a yellow link, and you'll be magically transported to that site. Links highlighted in green generally are interactive links that, when double-clicked, often require some additional input. As an example, when accessing one of the world wide web's many Search Engines, text input fields are green colored. Double-click on one of those, and a pop-up text input box will appear. Just enter a subject or a name or any other valid search criteria, click the close box and then double-click on the green colored Submit button; a listing of suitable sites will soon appear.

Once you double-click on an active link, SIS will provide visual indicators in the menu bar that show you what is going on. The first indicator displays the word "Processing" and that, in essence, means that SIS needs a second or two to process your mouse clicks and interpret where you want to go. After a very brief pause, SIS displays the word "Connecting" and that means that SIS is connecting to the remote server and requesting that the html document you requested should be sent. Since the world wide web

can sometimes be very sluggish, SIS has several timing related checks and balances built into it that will abort the connection if it is not established in a reasonable amount of time. If absolutely no connection is established to a remote computer, the idle timer will abort the process after 15 seconds; if the data starts to flow but the transfer rate is just too sluggish, SIS will abort the process after one minute. Once the connection to a remote server is successfully established, you'll then see a green thermometer bar that indicates how fast data is being received. Once the data transfer is complete, you'll then see the thermometer bar display change into what could best be described as a barber pole effect; during that time, SIS is parsing and processing the html code and rendering it on the IIGS screen as it was meant to be displayed.

Once an html document is rendered on the IIGS screen, the rendered screen is also saved to disk if you checked off the "Use Disk Cache" item in the Options Pull Down menu. I experimented a lot with that option during the beta test phase, and highly recommend that you do employ disk caching. With pages cached, they can be redisplayed on screen in the blink of an eye; if they are not cached, every time you want to go back to a page you've already seen, SIS has to retrieve the same data all over again. As happens so often on the world wide web, you will want to go back to a page that you've already seen, and caching lets you do that very quickly.

There are several different ways to navigate the world wide web with SIS. At the top of the SIS screen, there's a URL box that is very flexible. If you already know

the correct URL address of a web site you want to visit, just enter it into the URL box and then click on the green Go button to be transported there.

What if you don't know the correct URL? That's no problem, as most (but not all) companies already have customized domain names; as an example, Apple's web site is found at *http://www.apple.com*. But, SIS is a user friendly program, so all you have to do to visit the Apple web site is to type the word "apple" into the URL box, click on the green Go button, and SIS itself will add the missing pieces of the URL address and deliver you to Apple's web site.

Each site you visit during an on-line session is remembered by SIS and added to the History list which is located at the bottom of the Go Pull Down menu; that makes it very convenient to return to any site you've previously visited. And because those pages are cached, returning to a site you've recently visited is almost instantaneous. Keep in mind, however, that the History list is purged after each SIS session.

As you surf from one site to another, you'll surely find some sites that you want to return to during your next or subsequent SIS sessions. For that reason, SIS provides a bookmark file; the bookmark file, in turn, creates a customized and personalized Pull Down menu that lists your favorite sites on the world wide web. That listing is displayed in SIS from the Bookmark Pull Down menu, making it very easy and convenient to return to sites that you've bookmarked. So, whenever you are impressed by a site and want to return there at a later

time, just click on the "Add Bookmark" option in the Bookmark Pull Down menu.

If you've been surfing the web using the lynx web browser, then you probably already have a bookmark file that's stored on your Internet Service Provider's system. It's relatively easy to convert your lynx bookmark file to a SIS bookmark. There are however, as with most everything having to do with computers, several different ways to do that. The method I used was to display my lynx bookmark file to screen using Unix's "cat" command (cat bookmark.html), then I captured the file in my scrollback buffer, and then saved that to disk as an ASCII text file named bookmark.html. Then I ran SIS, used the Open File command and my lynx bookmark file loaded in just as if it were a home page on the world wide web. I then visited all the sites I wanted to add to my SIS bookmark file, and while visiting each one, clicked on the "Add Bookmark" option.

SIS And HTML

All sites on the world wide web, even the most elaborate ones, are set up and designed by employing what are known as html documents. All html documents are simply standard ASCII text files that contain HyperText Markup Language (html) code.

For those of you who are unfamiliar with the world wide web and/or with html code, a comparison to AppleWorks may clear up any confusion, because in one very important way, an html document is similar to an AppleWorks word processing document. AppleWorks allows for invisible printer formatting commands to be embedded into

a document; commands that control such things as text centering, text justification, the use of a bold face type style, or underlining. Although those commands are invisible when viewing the document on screen, the AppleWorks program itself knows how to execute those formatting commands whenever they are encountered.

All html documents include what are known as tags; tags are the world wide web's equivalent of AppleWorks invisible formatting commands. Like AppleWorks, web browsers know that when they encounter a formatting tag such as the center tag that all the remaining text should be centered on the screen.

SIS supports the html v3.2 standard, and it is the duty of the SIS browser display to interpret all of the embedded tags in an html document, and to display the document on the IIGS screen as the creator of the html document intended it to be displayed.

Offline SIS

Spectrum Internet Suite is so flexible that it can be effectively used, in several different circumstances, even when not connected to the Internet.

Spectrum Internet Suite is an extremely valuable tool for Apple IIGS users who maintain sites on the world wide web! The reason for this is that Spectrum's editor can easily be used to create html documents that can, in turn, be previewed offline by the SIS browser.

The SIS browser's Open File command can open up any html document and render it on the IIGS screen, even if that docu-

ment resides on the hard drive connected to your Apple IIGS. The key to remember here is that if any file containing html code is saved to your disk with an ".html" suffix (as an example: test.html) that file can be loaded using the Open File command, and SIS will treat it just as if it had been transferred via the Internet during an online SIS session!

Up until now, web site designers who owned only an Apple IIGS used any convenient word processor or text editor to create the text based contents that would appear on their sites and they manually entered all of the html formatting tags. But, in order for them to actually see what a rendered page would look like, they had to transmit the file to their Internet Service Provider's computer system, and then view the file using the lynx web browser.

The Spectrum editor doesn't actually do double duty as an html editor, so all of the html formatting tags still have to be entered manually, or through the wonders of cut and paste. But, once the web designer saves the html document to disk using the .html filename suffix, SIS can be run and the html document can be loaded in and rendered, thereby providing an offline preview of exactly what the page will look like once it's actually placed on the world wide web. By using SIS offline, you can actually create an entire web site on the IIGS and view it from your hard drive just as if it were viewed online. And, just as when you're viewing web sites online, you can press the "Open-Apple \" command to display the actual html "source code."

The implications of that are

simply staggering! Especially when you consider the fact that html is, in many ways, the world's first cross platform hypermedia environment, and that SIS is the latest Apple IIGS hypermedia program. The potential for educators is enormous; for example, a teacher could use Spectrum's editor to create an interactive lesson, and the student could use SIS to study that lesson. Or, a teacher could go onto the Internet and find a site that focuses on a particular subject area, and since all the pages that the teacher accessed are cached to disk, students would then be able to retrace the teacher's steps, but without actually having to go online.

The uses of SIS offline are one of those things where the only limit is your imagination.

The Pros And Cons Of SIS

SIS is going to delight the legions of Apple IIGS users who already surf the web using lynx. It also should help to bring many new Apple IIGS owners online for the first time, as it really tames the world wide web by letting people navigate through the labyrinth of sites with their mouse. Quite frankly, SIS is so easy to use that even pre-schoolers should be able to master it. But – and this is very important – there are some limitations to SIS.

SIS masquerades itself as Netscape v2.0 in order for Apple IIGS owners to gain access to as many sites as possible; in fact, SIS acts just like Netscape with the graphics turned off. SIS does offer support for frame cells the same way that lynx v2.6 does, and it can easily display pages with Tables. Al-

though SIS does offer support for many of the same features that are found in newer versions of lynx, it does not fully replace lynx.

SIS produces colored text and displays that text in multiple fonts, sizes and type styles, but SIS supports only four colors besides black, white and gray: red, blue, purple, and green. SIS only supports the following types of URL: http://, file://, and mailto:. SIS does not support the following types of URL: ftp://, news:, gopher://, or https://, all of which are fairly common on the world wide web.

There is at least one work around solution that overcomes SIS's inability to directly access news: URLs for reading and/or posting to Usenet newsgroups. You can always read news, and submit news articles, from one of the web based Usenet relay systems, such as AltaVista, DejaNews or Zippo. Although AltaVista and DejaNews are the better known of the services, Zippo is much better organized and receives news postings more quickly than the others.

If you therefore want to read and post Usenet news articles to comp.sys.apple2, add the following URLs to your bookmark file. The first URL is for reading the comp.sys.apple2 newsgroup; the second URL is for posting to the comp.sys.apple2 newsgroup:

http://drn.zippo.com/news-bin/ wwwnews?comp.sys.apple2

http://drn.zippo.com/news-bin/ newspost?comp.sys.apple2

Of course, you're not limited to only reading or posting to the comp.sys.apple2 newsgroup with Zippo. To read or post to other

newsgroups, simply replace comp.sys.apple in the above examples and substitute in its place the correct name of the newsgroup you'd like to access.

Unfortunately, no other work around solutions were discovered during the beta test phase, so SIS cannot be used to download files from ftp sites, it cannot display GIF or JPEG format graphics, and it does not allow you to use telnet or gopher to travel from site to site.

On the positive side though, SIS does support some exclusive Spectrum specific html tags, including one that supports the Byte Works' Talking Text Tools so that web pages can actually talk.

While SIS masquerades as Netscape 2.0 for access to as many sites as possible, there is one negative effect that results from that; namely, a IIGS screen will look like a Netscape screen. At first, that sounds wonderful. But, Netscape runs on computer platforms that offer much greater video resolution than does the IIGS. So, while a line of text that is 115 or 140 characters in length displays just fine on a Mac or PC, on the IIGS screen, the font is sometimes hard to read. It's especially hard when you first start using SIS, as you're probably used to viewing the web using the 80 column text screen. Rest assured, however, that the longer you use SIS, the less problematic the small font size becomes. In other words, you will get used to it.

Another major limitation of SIS is that because it does not operate under TCP/IP, there is no error correction! So, it is critical that you have a clean telephone

connection to your Internet Service Provider, as the least bit of line noise can cause a web page's display to be garbled. If and when that happens to you, just click on the reload button, and SIS will retrieve the web pages again.

Lastly, because Spectrum runs under GS/OS, it is extremely sensitive to outside influences, and most existing users of Spectrum know all about this sensitivity and have streamlined their systems so that they are "interrupt friendly." If you have Desk Accessories, Finder Extras or Inits that employ time toolbox calls – such as menu bar clocks or screen blankers – they can cause havoc with Spectrum and SIS, as they tend to interfere with Spectrum's smooth operation by issuing system interrupts at inopportune moments that can infringe upon and hinder Spectrum. It's a good idea, therefore, to get into the habit of disabling any and all Desk Accessories or Inits that can interfere with Spectrum. If you hold down the Shift key as GS/OS starts to load, no Desk Accessories or Inits will load, and therefore there will be nothing to interfere with the smooth operation of Spectrum Internet Suite. Spectrum is so full featured, you probably won't even miss your Desk Accessories; I never have.

Despite the obvious shortcomings, as described above, SIS is a remarkable product that is sure to bring a lot of joy to the Apple IIGS community. If you've never surfed the web before, you'll be overwhelmed with information when you first start using SIS to travel the highways and byways of the world wide web. Like me, you may find yourself staying up long after

your bedtime, double-clicking your way around the world wide web, accessing libraries in far off lands, reading news reports that will never appear in your local newspapers, studying scientific reports from NASA, or reading about cultural events on the other side of the globe. And, for those of you who have been using lynx and are already familiar with using the world wide web, you're in for a real eye opening experience. You'll surely revisit sites that you've been to many times before, and think to yourself: "I had absolutely no idea that's what it really looked like."

Now that Spectrum v2.1 supports a web browser, let's all hope that it's a raging success for Seven Hills Software, and that SIS is such a big seller that Seven Hills will be encouraged to develop it further to add even more support for other Internet and world wide web procedures and programs.

Over the course of the past several years, many people became convinced that a web browser for the IIGS was simply an impossibility without TCP/IP. Now that Seven Hills has performed miracles and accomplished the impossible, who knows what other wonders the Spectrum Internet Suite team of developers can come up with in the future?

Ordering SIS

Spectrum Internet Suite is available exclusively from Seven Hills Software for $25.

Spectrum Internet Suite requires Spectrum v2.1 to operate. Spectrum is available from Seven Hills Software for $85. Updates from Spectrum v1.0 cost $30. Updates from Spectrum v2.0 cost $25.

A bundle that includes both Spectrum v2.1 and the Spectrum Internet Suite is available from Seven Hills Software for $95.

(Note: Residents of Florida must add 7% for sales tax.)

Seven Hills Software can accept personal checks or money orders, Visa, Mastercard or Discover credit cards. Shipping and handling fees are $3.50 per order. Overseas shipping is charged at the actual airmail cost, (minimum of $3.50) and that will be added to your credit card charge unless otherwise arranged).

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Technical questions should be sent via Internet e-mail to:

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General questions should be sent via Internet e-mail to:

shss@nettally.com

Seven Hills Software maintains a SIS friendly world wide web site at the following URL:

http://www.nettally.com/shss

Ewen Wannop maintains a SIS friendly world wide web site that offers the latest news about Spectrum, and updates to Spectrum XCMDs and to the !Help! New Desk Accessory. Ewen's home page is located at the following URL:

http://ourworld.compuserve.com /homepages/ewannop/

Shareware Solutions II maintains a web site that has been enhanced for SIS viewing at the following URL:

http://www.crl.com/~joko

Heard It Through The Grapevine

Brutal Deluxe's LemminGS

Brutal Deluxe's LemminGS was completed in mid-January, and on the same day that the full game was released, a 10 level demo version was uploaded to all of the online networks and to several of the Internet's large Apple II ftp sites. Both the demo and the full version were greeted with critical acclaim and universal praise.

Less than a week after the LemminGS game was released, a rave review of it appeared in the II Alive newsletter. That review, written by LemminGS beta tester Geoff Weiss, concluded: "If you like great animation, fun music and challenging puzzles, you will love LemminGS!"

LemminGS features 92 levels of challenging enigmas to solve, 13 toe-tapping MidiSynth songs, numerous sound files, stunning artwork, beautiful animation, and it is a true interactive work

of art that all age groups should find to be a fun and challenging game to play.

On each of the 92 levels, it's your job to lead scores of mindless LemminGS to safety; you accomplish that by bestowing skills upon some of the LemminGS in order to help guide them on their perilous journey home. On some levels, you may have to guide them across large bodies of water, on others you'll have to dig holes or tunnels in order for the LemminGS to make it safely home. But, what makes the game especially challenging is that, more often than not, it's just not always readily apparent what set of procedures you have to follow, or which skills are needed, in order to lead the LemminGS to the exit and to the safety of their home.

Although Brutal Deluxe's LemminGS at first appears to be an arcade game, it really could be better described as a thinking

person's strategy game, a gigantic perceptual puzzle to solve, or perhaps even a test of perceptual acuity.

The first 10 levels are essentially training levels to familiarize players with the various skills they can bestow upon the LemminGS. Some people finish these first 10 levels in minutes; others agonize over them for days or weeks.

Solving a puzzle that at first glance seems impossible to solve requires that you follow a strategy. To assist you in formulating a strategy, whenever you start a new level, immediately click on the pause button and take a good look around. In a sense, study the level before venturing forth, discover the hazards that the LemminGS will face, and find the location of the exit.

A general strategy that works well on most levels is to turn the

second and third LemminGS into blockers who will then form a barricade that will prevent all the following LemminGS from wandering off cliffs; then use the very first Lemming as an explorer. And, if what that first Lemming tries doesn't work, try something different. As Brutal Deluxe advises in the documentation, "Be patient."

LemminGS is supplied on three 3.5" disks, and if installed on a hard drive, it requires nearly 2 megabytes of available disk space. Neither a hard drive nor a IIGS accelerator is required, but the game does operate much more smoothly if you have these installed on your IIGS. The game does require 2 megabytes of RAM and it must be launched from System 6.0 or later.

Brutal Deluxe created LemminGS as a "Limited Edition" game, available exclusively to those people who purchased Brutal Deluxe's Convert 3200; LemminGS is Brutal Deluxe's way of offering their thanks to those people who have made Convert 3200 such a success!

Convert 3200 is the very fastest graphics conversion program available for the Apple IIGS, and it is available only from Shareware Solutions II; the cost is a mere $15. LemminGS is available for a small shipping fee of $5. If you don't yet own Convert 3200, you can order both Convert 3200 and Brutal Deluxe's LemminGS for $20.

SCSI Voodoo

Several issues back, Steve Disbrow wrote about Apple II SCSI interface cards and stated: "The RamFAST card is just more compatible than the Apple II High-Speed card and that extra compatibility can save you all sorts of headaches and hassles."

Since then, several people who own an Apple brand High-Speed SCSI have written to Shareware Solutions II to report that they had experienced "all sorts of headaches and hassles" when attempting to use an Iomega 100 megabyte Zip Drive with the High-Speed SCSI card.

The explanation of why some people have problems with a Zip Drive is quite simple and therefore so is the solution. Zip Drives do not supply terminator power and neither does the Apple High-Speed SCSI card. So, in order to use a Zip Drive with an Apple brand High-Speed SCSI card, there must be at least one other SCSI device on the SCSI chain that does provide the necessary terminator power.

In other words, a Zip Drive cannot be the only SCSI device connected to an Apple brand High-Speed SCSI card; there has to be at least one other SCSI device on the daisy-chain, and it doesn't matter whether that other device is a CD-ROM drive or a SCSI based hard drive. All that matters is that the last device in the SCSI chain has a terminator plug attached to it.

Easter Eggs

• Subscriber Harriet Hoxie of Quincy, MA wants to share an amusing Easter Egg that she found in the MemoryTest.CL program that is included as part of AppleWorks GS. This program usually tests the integrity of the chips in your RAM expansion card.

As Harriet discovered, if you simultaneously hold down both the Open-Apple and Option keys as you launch MemoryTest.CL, you'll be informed that the name of the program you just launched is "Ernie's 3D Pancake Tester." The text goes on to state:

"This is a utility to test all of the pancakes in your Cortland computer to make sure they are all 3 dimensional. It will FLAMEBROIL ANY PAN-CAKES ON YOUR RAMDISK! If you want to quit now, type N or n or some combination thereof. Any 4 dimensional pancakes will be folded twice. Any 2 dimensional pancakes will be inflated. Any other kinds of pancakes will be eaten."

• Although Spectrum is published by a company based in the United States, there's an Easter Egg in the program that leaves no doubt about author Ewen Wannop's nationality. To activate the Easter Egg, access the About Spectrum item that is found under the the Apple Pull Down menu, and then leave that window open for 60 seconds. You'll see a Union Jack appear, along with the words: "Made in Britain by Speccie."

• Brutal Deluxe loves to add amusing Easter Egg graphics and messages to its software, so it should come as no surprise to anyone that there are at least six Easter Eggs located on the main menu screen in "Brutal Deluxe's LemminGS." To activate them, you'll need to locate what could best be described as "open spaces" in the letters that make up the name LemminGS, and click in those open spaces. Each click on an open space activates another picture of a Lemming along with some LemminGS related text. One asks, "How many Lemmings have you killed today?" while another ad-

vises you, "Don't waste time looking for Easter Eggs."

In addition to those playful Eggs, Brutal Deluxe informed the beta test team that there is also a very useful one that allows anyone to skip to and play any level of the game he or she chooses. Brutal Deluxe, however, told us about that Easter Egg after the beta test was completed, and they swore us to secrecy, as they didn't want us to spoil the game by providing a "cheat" this early in LemminGS life cycle.

• Bernie][The Rescue (the IIGS emulator formerly known as Fast Eddie) has an amusing Easter Egg. To activate it, press down both the Command and Shift key, access the About Box from the Apple Pull Down menu, and then close the About Box. Instantly, the IIGS screen will be flipped upside down, the menu bars will appear at the bottom of the screen, the mouse will move in the wrong direction, and pop-up menus will pop down. To deactivate the Easter Egg, just repeat the procedure that activated it.

Networking Your Apple IIGS

by Steven W. Disbrow

Chances are, even though you love your IIGS, you've probably added a second (or even a third) computer to your home. You might even have a separate printer for each and every computer you own. If so, I'll bet that on more than one occasion you've thought to yourself, "Gee, I wish I could hook my IIGS and all of these other computers and printers together." What you were wishing for is a computer network, and you've probably been told by some expert that your IIGS just can't do that. As usual, the "experts" are dead wrong.

What's A Network?

OK, let's start from the very beginning. In the simplest of terms, a network is a group of computers and/or computer peripherals (like printers) that are connected in a way that lets them pass information to and from each other. A very simple network would be one that consists of, let's say, two computers linked by a single cable in order to play a game.

At the other end of the network spectrum we have the Internet. The Internet is a network made up of hundreds of thousands (if not millions) of computers, and printers, and hard drives, and scanners, and cameras, etc., all linked to one another through a labyrinth of wires, transmitters, satellite links, and switches.

Why Network?

When you hook one or more computers together to form a network you get lots of benefits that you might not expect. The biggest benefit is that you are sharing resources between all of the devices on the network. For example, if you've got two computers and one printer, both computers can print to the same printer without having to move any cables around. Another example would be hard drive space. If you hate to back your IIGS hard drive up to floppies, just imagine backing it up to, say, a Zip Drive that's connected to your Mac.

How The IIGS (Net)Works

To hook a computer to a network, you need some sort of network hardware, which is usually called an "adapter." A network adapter is a piece of hardware that networking software uses to talk to the other computers on the network. On the IIGS, the networking hardware goes by the name of "AppleTalk," and it's built right in.

Yep, that's right! Apple put AppleTalk hardware into every IIGS ever made. If you are wondering where it is on the IIGS, it's sort of "behind" the serial ports (i.e. the printer and the modem ports). In fact, when you hook your IIGS to an AppleTalk network, you pick either the modem or printer port and plug the network connector into it. Then you just turn AppleTalk on in the Control Panel. You lose the serial port, but you gain a *lot* more than you gave up.

Once you've got the network adapter in place, you need some sort of cable to hook it to the network adapter on the next device. For AppleTalk networks, the best way to run a cable between devices is to use a Phone-Net® connector. A PhoneNet connector is a device that takes the AppleTalk signals coming out of your IIGS and converts them into signals that can be transmitted over an ordinary phone cord! This makes building an AppleTalk network *very* in-

expensive compared to other types of networks.

So, to "cable up" an AppleTalk network, all you do is plug a PhoneNet connector into each device, and run a length of phone cord between the connectors. Each PhoneNet connector has two jacks in it, so that each one can connect to two other PhoneNet connectors. This lets you create a "daisy-chain" of devices, all of which are on the same network and can communicate with each other.

OK, so there are a couple of things to watch out for: First, be *sure* that the phone cord you use has *four* (4) wires running through it. This is important because the PhoneNet connectors send their signals along the two *outside* wires in the phone cord. Most phone cord has four wires in it, but some cheaper brands have only two wires in them. This is because that's all you need to hook up a single line telephone. (Tech Trivia Point #1: Phone cords with four wires are usually used for two-line phones. The second phone line is carried on the two outside wires. Tech Trivia Point #2: If you are inventive, you can "piggy back" your AppleTalk network on the same piece of phone cord as your single telephone line. This is best left as an exercise for the savvy reader.)

Next, you have to be sure that the PhoneNet connectors at each end of your network are "terminated" properly. If they aren't, the network signals can "bounce back" across the network and cause all sorts of confusion. For example, let's say your network consists of a Mac, a IIGS and a Printer; the Mac is connected to the IIGS, which is connected to the Printer. The

IIGS is connected to two devices (the Mac and the Printer), and the Printer and the Mac are each connected to only one device (the IIGS). This means that the Printer and the Mac are the "ends" of your network. So, the PhoneNet connectors plugged into these devices are the ones that have to be terminated. Fortunately, many PhoneNet connectors made today are what is called "self-terminating." In other words, they can tell when they need to be terminated, and will terminate themselves when the need arises. (Ah, if only politicians were like that.) Most PhoneNet connectors say right on the package if they are self-terminating or not.

If a PhoneNet connector isn't of the self-terminating variety, it will come with a terminator plug. In this case, all you have to do is make sure that you put one of these terminator plugs into the PhoneNet connector at each end of your network.

Please note that I use the word "PhoneNet" as a generic term to describe any AppleTalk connector. There are lots of other companies that make PhoneNet compatible connectors, and they usually charge a lot less for them. One especially good brand is called TurboNet; TurboNetST is the self-terminating variety. So, when you go to CompUSA or OfficeMax to look for these things, just look for "PhoneNet Compatible" or "Macintosh Network Connector," or something similar. Oh, and whatever you do, *don't* make the big mistake of buying a connector for the older Mac Plus. They use the older style 9-pin DIN serial connector. Make sure that you get the 8-pin connector that will plug into your IIGS's serial connector.)

Hmmmm, Software

Another key component of networking a IIGS is the required networking software. Fortunately, you won't have to go to CompUSA to get this; it's included as part of the IIGS System Software. All you have to do is install it. To do that, just boot up the System 6.0.1 Install disk, pick the "Customize" option, and then install one of the following options onto your boot disk:

Network:AppleShare – If you won't be using any sort of network printer, this option will install everything you need to access files on an AppleShare network server. (*Note:* AppleShare is the name Apple uses for its file sharing software. This is the software that lets a Mac make its files and folders available on a network for others to access. AppleShare software for the IIGS allows you to access these shared items on the network.)

Printer:Atalk ImageWriter – If you will be using an Image-Writer on your network (more on this below), install this option. It also installs everything that the Network:AppleShare option does.

Printer:LaserWriter – If you will be using a LaserWriter or other PostScript printer on your network (more on this below), install this option. It also installs everything that the Network: AppleShare option does. (*Note*: If you are using a PostScript Level 2 printer, the LaserWriter driver in System 6.0.1 won't work properly with your printer. To work around this, first install the Printer:LaserWriter option from the System 6.0.1 Install disk. Then, copy the file System: Drivers:LaserWriter from the

System 6.0 SystemTools2 disk into the System:Drivers folder of your boot disk. This will let you use your PostScript Level 2 printer normally.)

Control Your Panel

The last piece of the puzzle is something that you should actually do *first*. Namely, you need to tell your IIGS that you actually want to use AppleTalk, and not your serial port. Yes, just in case you missed it the first time I said it, you have to give up a serial port on your IIGS in order to use AppleTalk. Fortunately, this is no big deal because one of the things you can hook up via AppleTalk is a printer, which is probably why most people use their printer port to hook into the network. Assuming that *you* want to use your printer port too, and depending on which ROM version IIGS you have, here's how you have to set up your IIGS Control Panel to use AppleTalk:

ROM 01 – First of all, change the slot 1 setting from "Printer Port" to "Your Card." Next, change the slot 7 setting from its current setting to "Apple-Talk." Now, this can lead to a relatively minor problem if you've got, say, a SCSI card plugged into slot 7. Sadly, the only solution here is to move whatever is in slot 7 to another slot. Generally speaking, I'd recommend moving your SCSI card to slot 6 and (gasp!) giving up those old 5.25-inch drives. You can always turn them back on if you *really* need to, but you'll enjoy your new network a *lot* more.

ROM 3 – You don't really have to make *any* sacrifices if you've got a ROM 3 IIGS. Just change slot 1 to "AppleTalk" and you're

all set.

Well, those are the basics of Networking on the IIGS. Now let's look at how we take those basics and use them to hook up an actual network.

Hooking Up A Printer

First, we'll look at hooking up a LaserWriter or other PostScript printer. (Please note that not all Apple-brand LaserWriters are PostScript printers. Make *sure* the printer you get is a Post-Script printer and you'll be fine.)

The first thing you need to do is make sure the printer has an AppleTalk connector built in. Almost all of Apple's current LaserWriters do, but there are a few exceptions that only have serial port connectors and even one truly horrid printer – the LaserWriter SC – which uses a SCSI connection. If in doubt, *ask*.

Of course, you don't have to use an Apple-brand LaserWriter, as *any* PostScript printer with an AppleTalk port can be networked with your IIGS. Just ask the three magic questions...

• Is it a PostScript printer?
• Will it work with a Mac on an AppleTalk Network?
• Does it come with a money-back guarantee?

...and you'll be fine. (For more on picking a PostScript printer to use with your IIGS, see the amazingly informative article, "Mr. Priceguide Looks At Laser Printers" in the Nov-Dec 1994 issue of GS+ Magazine.)

Once you've got your printer, here's what you do:

1) Buy two PhoneNet connec-

tors. Plug one into the IIGS and one into the printer.
2) Run a phone cable between the two connectors, and terminate them if necessary.
3) Install the Printer:Laser-Writer update on your boot disk. (Don't worry if your printer isn't an Apple-brand "LaserWriter." The software that gets installed will work with any PostScript printer.
4) If your printer is a PostScript Level 2 printer (check the printer docs to find out), the Laser-Writer driver in System 6.0.1 won't work properly with your printer. To work around this, first install the Printer:Laser-Writer option from the System 6.0.1 Install disk. Then, copy the file System:Drivers:LaserWriter from the System 6.0 System-Tools2 disk into the System: Drivers folder of your boot disk. This will let you use your Post-Script Level 2 printer normally.
5) Set your control panel up appropriately. (See the section "Control Your Panel" above.)
6) Reboot, open the Control Panel New Desk Accessory and then open the Net Printer Control Panel. Pick "LaserWriter" from the pop-up menu at the top of the Control Panel. A few moments later, the name of your printer will appear in the list. Click on the printer name to select it, and then close the Net Printer Control Panel.
7) Run your favorite *Desktop-based* text editor. My favorite is EGOed, but AppleWorks GS will work too. Create a new document, pick Page Setup from the File menu, and set the "Vertical Sizing" option to "Condensed."
8) Print the document!

A few moments later, depending on the speed of your printer, your document should print out, and it should look absolutely fabulous.

Polish That Image(Writer)

Now, I was going to write a big long section on how to hook an ImageWriter II printer up to your network, but the truth is that the process is almost exactly the same. The difference is that first you have to install the "AppleTalk Option card" in your ImageWriter II. (Sorry, but the old ImageWriter I can't be put on an AppleTalk network, just the ImageWriter II.) This card turns your ImageWriter II's serial port into an AppleTalk port and lets you connect it to your AppleTalk network just like you would any other device.

So, after you've installed the AppleTalk Option card, simply follow the above instructions for using a LaserWriter, and just substitute the words "Image-Writer II" (or just "ImageWriter") where appropriate.

(Note: AppleTalk Option cards for the ImageWriter II can be purchased from Alltech Electronics. Alltech currently sells used Apple-brand cards for $39 and new ones from Sequential Systems for $59. For additional information, contact Alltech at 619-724-2404.)

But What About...

But what if you want to hook up a non-PostScript or non-Image-Writer II printer and use it from your IIGS. Well, you *should* be able to do this. The trick is finding a *driver* for the printer. Both Seven Hills Software and Vitesse sell GS/OS drivers for various non-networkable models of Hewlett-Packard Laser-Jet, DeskJet, and DeskWriter printers. (*Note from Joe*: See the item entitled "Looking Good In Print" in Volume 2, Issue 1 for complete information on using

these HP Printers with an Apple IIGS.) If you can find the right driver, and the printer has an AppleTalk port, you should be able to hook it up and use it just like you would an Image-Writer II. And remember, if the HP printer you buy is a Post-Script printer, you've already got the driver! Just use the La-serWriter driver!

Sharing Files

While having a printer on a network is nice, it's nowhere near as useful as sharing files over a network. (Just so you have the basic terminology down, a computer that makes its files available to other computers on a network is called a "file server." And the act of making those files available is called "file sharing." A computer that accesses the files on a file server is called a "client.") Fortunately, connecting your IIGS to an AppleShare file server is almost as simple as hooking up a network printer. Unfortunately, a IIGS can't act as a file server; it can only be a client.

As before, the first step is to connect your IIGS to your Mac by installing the correct cables. (In other words, a couple of PhoneNet connectors and some phone cord.) Next, you have to set your Mac up to act as a file server. For this example, I'll show you how to share a single folder on your Mac and then access it from your IIGS (note that this example assumes you have System 7 or later installed on your Mac):

1) Create a new folder on your Mac's desktop. Call it something like, "Files for the IIGS."
2) Select the folder and then select "Sharing" from the File menu. This will bring up a dia-

log box showing all of the file sharing options for the folder.
3) In the dialog box, turn on the checkbox labeled, "Share this item and its contents."
4) Close the dialog box. At this point, your Mac will ask you the question, "Save changes to access privileges for Files for the IIGS?" Click the Save button and *boom*. That's it. You are sharing files on your network. (Notice that the icon for the folder changes so that it looks like a pipe is coming out of the folder. This signifies that the folder and its contents are being shared on the network.)

Now, any file you copy or move into that folder will be available to any computer that connects to that shared folder. Which brings us to the next part of this discussion: How to connect your IIGS to that shared folder. Once again, the whole process is fairly simple. Just follow these steps on your IIGS:

1) If you haven't already done so, install the Network:AppleShare update, and set up your Control Panel to use AppleTalk. (See the first part of this article for info on how to do this.)
2) Restart your IIGS and go to the Finder. Open the Control Panel New Desk Accessory. Near the top of the list of Control Panels there should be a Control Panel called "Apple-Share." Open it.
3) This will bring up a window that will allow you to select a file server from all of the file servers on the network. The name of your Macintosh should appear in this list. Double-click on your Mac and go to the next step.
4) At this point, a dialog box will appear asking you for a user name and a password. Since we didn't specify a user name or password, we don't have one to

give. So, simply click on the radio button labeled "Guest" and then click the OK button.

5) Now you'll see a list with the names of all the folders and/or disks that are being shared by the file server you selected in step three. At this point, there should only be one item in the list, "Files for the IIGS," so click on that one to highlight it. (Also notice the check box that is to the right of the name "Files for the IIGS." If you click this check box, the IIGS will try to *automatically* log on to this shared folder every time you restart your IIGS. This can be handy if your Mac is on all the time. But, if you ever boot your IIGS with your Mac turned off, your IIGS will spend a *lot* of time while attempting to search the network for that folder. If this happens, don't panic. Your IIGS will give up eventually and continue booting normally.) After you have the name highlighted, click the OK button.

That's it! At this point, the dialog box will disappear, and you should see a new icon appear on the IIGS desktop. This icon (which is supposed to look like files and folders on a service platter...a *service* platter...a file *server*...get it?) represents the folder on the Mac. From here on out, you can access this folder on your IIGS as if it were a Macintosh disk volume that you had hooked up directly to your IIGS.

Go ahead and try it. Copy a file from your IIGS to the "Files for the IIGS" icon. Now, run over to your Mac and look inside the folder. The file should be there.

Next, try going the other way. Copy a file from your Mac into the folder. Now run over to the IIGS. Again, the file should be there. Cool isn't it?

The Final Option

OK, so you didn't buy a Mac. You bought a PC. Not to worry; you can *still* hook your IIGS and your PC up on an AppleTalk network. Apexx Technology Inc makes and sells a product that is called the "PCTalk Personal MacLan Kit." This package contains an AppleTalk network adapter (which plugs into your parallel port and you plug your PhoneNet connector into the adapter), along with the Personal MacLan Connect software (from Miramar Systems Inc) that will let your PC act as an AppleShare file server! So, with this hardware and software combination, you don't *need* a Mac to set up a simple AppleTalk file server. You can even use this setup to let your PC print to the printers on your AppleTalk network!

OK, there are a few problems with using a PC file server:

1) The hardware and software cost about $300. (The PCTalk Personal MacLan Kit is available from PC Connection and other PC and Mac mail-order houses. Shop around for the best price. *Warning*: Some places sell *just* the Personal MacLan Connect software for about $170. To create an AppleTalk Network your IIGS can work on, you *must* get the PCTalk Personal MacLan Kit! This kit includes the correct hardware as well as the software you need.)

2) Files stored on a PC file server will have their names shortened to fit DOS naming conventions. However, this name mangling only shows up *on the PC side*. When you access the files over the network, they will look fine on the IIGS.

3) It can be a real hassle to in-stall and set up the PC software. But, hey, it's PC software. We expect that, right?

That's It

So there you have it. A complete overview (and more than a few details) of what it takes to use your IIGS (or Mac or PC) on an AppleTalk network. Is it worth doing? Well, here at my house, my wife and I have a nifty little network with a IIGS, a PC, two Macs, a LaserWriter IINT and a DeskJet 680C printer on it. I've also got "dangling" PhoneNet connectors that let me hook up a PowerBook and a Newton if the need arises. It makes sharing data and printing a *lot* easier. (In the Dilbert comic a network such as this in the home creates what is called "Nerdvana."). In my opinion, there's nothing better you can do for your IIGS than to hook it up to your other computers. Once you do, you'll see that your Mac and/or PC *isn't* just a worthless piece of silicon; it's a *great* back up system for your IIGS!

Blatant Plug Department

A long time ago, I published a little magazine called GS+ Magazine. (Or so I'm told. The therapist says I've blocked it out and replaced it with false Vietnam War memories.) In that magazine, we published a couple of articles that were very relevant to this topic. The first article was called "Apple (Jive) Talkin" and it had lots of neat pictures and descriptions of how to set up an AppleTalk Network. (This was in the Sept-Oct 1993 issue of GS+ Magazine.)

The second article I've already mentioned – "Mr. Priceguide Looks At Laser Printers." It's in the Nov-Dec 1994 issue of GS+

Magazine and it tells you everything you need to know about buying a PostScript laser printer for use with your IIGS.

Both of these make great companions to this article (the pictures in the "Apple (Jive) Talkin" article are especially nice), and

I've got plenty of back issues left. They are just $5 each (including shipping). If you want one, call me at 423-843-1775 and I'll set you up.

Such A Deal!

Open-Apple / A2-Central

For several years in the early 1990s, Apple Computer Inc sponsored the annual "Apple II Achievement Awards" as a way of recognizing and paying homage to those prominent individuals and companies who were producing outstanding Apple II products. In 1991, Tom Weishaar was awarded the "Apple II Individual Recognition" award, and in both 1990 and 1991, Tom Weishaar's A2-Central newsletter was awarded the prize in the "Best Publication" category.

Tom Weishaar worked long and hard to establish his Apple II credentials long before he was awarded the "Individual Recognition" achievement award. As an Apple II user since 1980, he had already written several books, and Beagle Bros had published several of his Apple II programs, including Frame-Up and ProntoDOS. In April, 1983, Weishaar joined the staff of one of the most popular Apple II magazines, Softalk, and his "DOSTalk" technical column appeared in all of the remaining issues of that highly regarded magazine. When Softalk went out of business in 1984, Tom decided to strike out on his own.

In January, 1985, the premiere issue of the Open-Apple newsletter appeared. Written and published by Tom Weishaar, that monthly eight page news-

letter established itself from the very beginning as the preeminent technical journal for intermediate level Apple II users. Featuring such columns as "Digging Into DOS," "Picking Up Applesoft," "Go, Logo, Go" and "Ask Uncle DOS," Open-Apple was clearly geared towards programmers, power users and those who wanted to gain a degree of technical mastery over the Apple II computer.

Open-Apple succeeded beyond Weishaar's wildest dreams, and to this day, many Apple II users still consider it to be their favorite Apple II oriented newsletter. By 1989, Tom hired Dennis Doms to become editor of the newsletter, recently renamed A2-Central, while Tom went about expanding his Resource Central organization into a veritable Apple II publishing empire. In the summer of 1989, he sponsored and coordinated the first of many KansasFest conferences. And within just a year or two, Tom Weishaar was publishing various disk-based magazines that focused on Hyper-Studio (Studio City), Apple-Works (TimeOut-Central), and HyperCard IIGS (Script-Central). His organization also took over the day-to-day operations of all the Apple roundtables on the Genie online network.

In February, 1989, A2-Central-On-Disk first appeared, and that 3.5" disk contained the full text of the current month's A2-

Central newsletter, as well as an assortment of the latest freeware and shareware programs for the Apple II. By utilizing compression software, each issue of A2-Central-On-Disk contained more than a megabyte of current Apple IIe/IIc and IIGS freeware and shareware.

Then in late 1992, Apple Computer discontinued the Apple IIGS, and many companies involved with the Apple II started to suffer financial setbacks. By June of 1993, things started to unravel for the Resource Central organization, and it was announced that after 8.5 years of publication, the paper based A2-Central newsletter would cease publication. The newsletter, however, was destined to live on as a disk-based publication in A2-Central-On-Disk, and that lasted until February of 1995, at which time, Tom Weishaar's organization ceased to exist.

I was recently surfing the web, and stumbled upon Tom Weishaar's home page at the following URL:

http://sitecentral.com/ SiteCents/home.html

It was there that I found Tom's current e-mail address, so I wrote to him. Coincidentally, I'd had A2-Central on my mind ever since Joe Walters, a man I'd met at Kfest '96, uploaded a series of files to the Internet that contained a complete index of every

article that had ever appeared in Open-Apple and A2-Central. One thing quickly led to another, and Tom and I discussed the possibility of making the entire back issue collection of A2-Central-On-Disk available through Shareware Solutions II. Within 20 short minutes, we reached an agreement, and within 30 minutes, we reached a second agreement.

For the first time ever, every word that appeared in every issue of Open-Apple, A2-Central and A2-Central-On-Disk will be available on a 3.5" disk collection. In the 10+ years that the newsletter was published, a total of 8.8 megabytes of text was written by some of the finest Apple II writers who ever graced our community. And effective immediately, these disks are available from Shareware Solutions II!

The "A2-Central Text Bundle" is supplied on 12 3.5" disks, and as a special bonus, Joe Walters has agreed to allow his complete index files to be included in the bundle. The cost of that bundle is $35, and the price includes air mail shipping to anywhere on the planet.

In addition to the "A2-Central Text Bundle," Shareware Solutions II will also be distributing every A2-Central-On-Disk that was ever released from February, 1989 until February, 1995, for a total of 73 disks.

Before the A2-Central-On-Disk collection can be made available, a lot of effort needs to be devoted to cataloging and indexing these disks, as well as decompressing and running all the software to insure that the data on Tom Weishaar's master disks has remained intact and undamaged.

So, in the meanwhile, Shareware Solutions II would like to offer the final February, 1995 issue of A2-Central as a way of introducing you to a wonderful Apple II resource. In this final issue of A2-Central, the newsletter alone is a whopping 93K in length, and it contains articles written by Doug Cuff, Steve Weyhrich, Dennis Doms and Kevin Noonan. At the time, AppleWorks v5 had just been recently released, so that was a major focus of this issue.

Apple II software on the February, 1995 A2-Central disk includes a patch that fixes a bug in AppleWorks v5.0, several different TimeOut applications for AppleWorks v4 and v5 that play music and send Morse code, a crossword puzzle program, a detailed technical summary of a KansasFest session that focused on Input/Output (I/O), and an Applesoft BASIC renumber program.

Apple IIGS software on the February, 1995 A2-Central disk includes several utilities that allow you to "cheat" on more than 30 games, a program that unpacks ARJ compressed files, several graphic utility programs from Brutal Deluxe, an editor for IIGS sound files, a sound player, several digitized sounds, and a GS/OS Init that lets you use a font's extended character set in any GS/OS program.

The February, 1995 A2-Central disk is available, on 3.5" disk only, exclusively from Shareware Solutions II for $5.

Please note that all of the program files on A2-Central are compressed with ShrinkIt; if you don't own ShrinkIt, please add $1 for a 3.5" disk that contains versions of ShrinkIt for both the Apple IIe/IIc and IIGS computers.

ProSel

The most complete set of Apple IIe/IIc and IIGS utility programs in existence has just gotten more affordable than ever before!

Shareware Solutions II was recently able to renegotiate the royalty arrangements that had previously been agreed upon with ProSel's publisher – Chuck Newby of Charlie's Appleseeds – and we're pleased to announce that because of those negotiations, you'll be able to purchase ProSel-8 and/or ProSel-16 from Shareware Solutions II for less than ever before; $12 less, to be exact.

Effective immediately, the new cost for the Apple IIe/IIc version of ProSel-8 is $20, and the new cost for the IIGS version of ProSel-16 is $40. And to save you even a few more dollars, the shipping costs have also been reduced from $5 to $3.

Neuromancer / Dragon Wars

A little more than a year ago, Shareware Solutions II purchased the Big Red Computer Club's inventory of unsold commercial IIe/IIc entertainment software products. A total of 17 different titles have since become available from Shareware Solutions II at bargain pricing.

However, many of those are now sold out, and some of the games that do remain are only available in extremely limited quantities. For that reason, Shareware Solutions II is now forced to withdraw the original 1996

"Such A Deal" offer.

Of the 17 games that were originally available, only Dragon Wars and Neuromancer remain in sufficient quantities. So effective immediately, Shareware Solutions II would like to offer these two games for a total of $15 (this price includes air mail postage to anywhere), and while supplies last, purchasers will receive one of the other game titles as a free bonus. At the present time, there are still some copies remaining of Dig Dug, Donkey Kong, Pac Man, and Ms Pac Man; one of these will be included with each order.

Neuromancer is a "cyberpunk role-playing adventure" game based on the best selling novel by William Gibson. The science fiction scenario takes place in 2058, at a time when "skill chips" are routinely implanted into people's brains and cyber-cowboys can easily jack into cyberspace's matrix simulators. It's a nightmarish world in which artificially intelligent humans run amok and zap brains with neural shocks, and it's a world in which you are armed with only the skills, equipment, software and information that you find along the way. If you're lucky, you and your ROM construct will soon be breaking into government and corporate computer systems. If you're unlucky, you'll soon be dead.

Dragon Wars is a fantasy role-playing game by Bill Heineman. Many light years from Earth, on the small planet of Oceana orbiting the star Sirius, there exists the wondrous but violent land of Dilmun – a land of islands and cities, lush forests and rubble-filled caverns, slave markets and slums. This world is populated with evil entities,

madmen and lunatics, ghoulish ghosts, powerful dragons, killer beasts, sadistic slave drivers, and strange people who perform and teach outlawed magical feats. In charge of this world is the mightiest sorcerer of them all: the evil Namtar, the Beast from the Pit.

As Dragon Wars begins, you'll find yourself in the poverty-ridden city of Purgatory. All you know is that your goal is to defeat Namtar. Your first task is to assemble a party of adventurers. Once your party is assembled, you'll go off in search of adventure, and it won't take long for trouble to find you. You may be approached by a band of thieves, or unjustly accused prisoners, or a giant spider, or a guard, and all of them seem to have just one thing in mind: they want to kill you and massacre your party. You'll therefore need all the weapons, ammunition and magical spells that you can beg, borrow or steal if you ever hope to meet up with and defeat Namtar.

Both Dragon Wars and Neuromancer require an Enhanced IIe, IIc or IIGS computer with 128K and a 5.25" disk drive. And for only $15, you'll get both games, and a free bonus of a classic Apple II arcade game. Such a deal!

IIGS Games

Shareware Solutions II was

able to find a small treasure chest of Apple IIGS commercial games, and is able to offer them to Shareware Solutions II subscribers at special "Such A Deal" pricing! Effective immediately, Fire Power and California Games are available for $10 each, with air mail shipping costs included!

California Games is a game of skill in which one to eight players compete in such wild California style sporting events as surfing, skateboarding, roller skating, off-road bike racing, foot bag kicking and frisbee tossing. There are both practice modes and competition modes, and the games can be played via joystick or keyboard. Due to the "gnarly" nature of these games, California Games is bound to be most appreciated by the younger members of your family.

Fire Power is a one or two player action-packed arcade tank battle game that features continuous shoot 'em up excitement. There's even an option that allows two players to connect via modem and to play against each other.

Both games date from the late 1980s and will run with as little as 512K of RAM. Please note that there are only 20 copies of each game in stock, but additional shrink-wrapped copies are available in case these games prove to be popular.

Shareware Solutions IIe/IIc/IIgs

A2 Disks Of The Month

One of the primary goals of the

monthly Genie A2 disks has always been to provide people with lots of current Apple II in-

formation and with a slew of current Apple IIe/IIc and IIGS software. The source of the information and software is the Genie A2 RoundTable. Despite the fact that A2 remains the center of the Apple II online universe, less and less new software is being uploaded to the A2 libraries, and because of that sad fact, the production schedule of the A2 disks has recently suffered.

Chuck Newby compiles the A2 monthly disks, and he recently stated: "It is also time to consider changing the name of the disks from DoM (Disk of the Month) to Apple 2 Disk because it just isn't possible to pull a Disk of the Month out of the library each month."

Despite the recent sporadic and irregular schedule of the DOM disks, Shareware Solutions II will continue to make the A2 disks available, because when they do appear, they contain a lot of useful and helpful Apple II information that you can't get elsewhere, and the quality of the software is simply topnotch.

The December, 1996 issue of the Genie A2 Disk of the Month includes the September and December issues of GenieLamp. Each issue of this informative newsletter contains the equivalent of 30 printed pages of Apple II news, facts, hints, tips and jokes.

Software for the IIe/IIc on this disk includes Side 2 of the 5.25" version of Computer Keyboarding; Side 1 appeared on the November, 1996 A2 disk.

Software for the IIGS on the December, 1996 DOM includes a 10 level demo of the strategy game Operation Lambda, and

four Desktop Init graphics.

The January/February, 1997 issue of the Genie A2 Disk of the Month includes the January and February issues of GenieLamp.

Software for the IIe/IIc on this disk includes a menu program called AutoMenu and instructions on how to patch Apple-Works v5.1 to correct a problem that exists in which the size of the desktop shrinks with each successive launch of Apple-Works.

Software for the IIGS on this disk includes a program that will display the contents of your IIGS bit-mapped and TrueType fonts. Also included is a demo version of the Pedigree 2 GS/OS desktop genealogy program, a GIF graphic viewer program, and a Finder Extra that allows you to double-click on Super Hi Res graphics, text files or font files and the contents of those files will be displayed in a window on your desktop.

These A2 Disks of the Month are available from the Shareware Solutions II library, on 3.5" disk only, for $5 each or $8 for both.

Shareware Solutions IIGS

Astronomer GS

Larry Bell's Astronomer GS is an awesome, stunning and dazzling shareware program that's surely as complete and full featured as any commercially available astronomy program released for any microcomputer.

Supplied on seven 3.5" disks, Astronomer GS is of interest to amateur astronomers, teachers, students, astrologers or trivia buffs. It is an artistically designed program that provides multiple graphs, graphic representations, charts, and facts about the planets, the sun and the moon.

It contains a huge database of astronomical facts, and it can, for example, determine the next solar or lunar eclipse, and can display or print a graphic of this upcoming event as viewed from your location. It can print out a moon phase calendar, and it can display a graphic representation of the moon's position,

hour by hour. If you want to find out what time Venus will rise, or when Mars will set, Astronomer GS will perform all the calculations for you with just a few clicks of your mouse.

Astronomer GS is not a sky simulation or a planetarium type of program, but instead is a serious tool for amateur astronomers who want to be able to use a IIGS to plan an actual sky viewing session. In fact, it's a must-have program for anyone with a telescope and a serious interest in the night time sky.

The seven disk Astronomer GS program is available from the Shareware Solutions II library for $14. Please note however, that if you like this program, you are responsible for submitting your shareware fee directly to Larry Bell; in return, he will send you a printed 130 page program manual.

Wolfenstein 3-D Beta

Last November, Logicware an-

nounced that Wolfenstein 3-D, the long awaited game for the Apple IIGS, was entering into the beta test phase and that eager beta testers could download the game directly from the Logicware site on the world wide web at the following URL:

http://www.logicware.com

The beta test version of Wolfenstein 3-D is far from complete. It includes only the first three levels of the game, and a save game option has not yet been implemented. Although there is a fine musical introduction, the planned sound effects have not yet been implemented, and an entirely new set of improved graphic screens have not yet been incorporated into the program. But, the folks at Logicware continue to work on Wolfenstein 3-D as time permits, and chances are that the completed game will be released as freeware sometime in 1997.

Logicware made the Wolfenstein 3-D beta available because they needed feedback, and for that reason, they placed a restriction on the re-distribution of the 3-D beta release as they only wanted people with ready access to e-mail to test out the game. However, Logicware recently contacted Shareware Solutions II to request that the beta version of the game be made available, in its current unfinished state, to eager subscribers who want to take it out for a test drive.

The Wolfenstein 3-D beta release requires a IIGS equipped with a standard ADB keyboard, a hard disk drive with at least 2 megabytes of free disk space, and 4 megabytes of RAM. It requires System 6.0 or later, and although an accelerator card is strongly recommended, it is not required.

So get your trigger finger ready and get psyched! The Wolfenstein 3-D beta version is now available from the Shareware Solutions II library for $5.
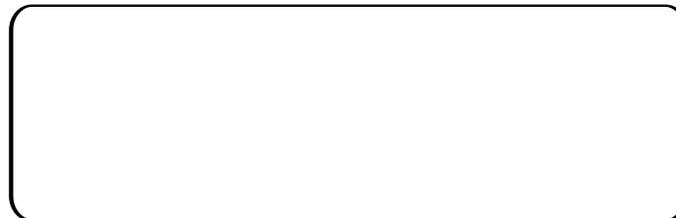
Ordering Disks

Please order by disk name and specify the disk size you want.

Checks or money orders, in US funds only, can be accepted for payment of disks from Shareware Solutions II. Please make all checks payable to Joe Kohn.

All disks are guaranteed to be free from any computer virus or physical defect. Disks damaged in the mail will be replaced free of charge.

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