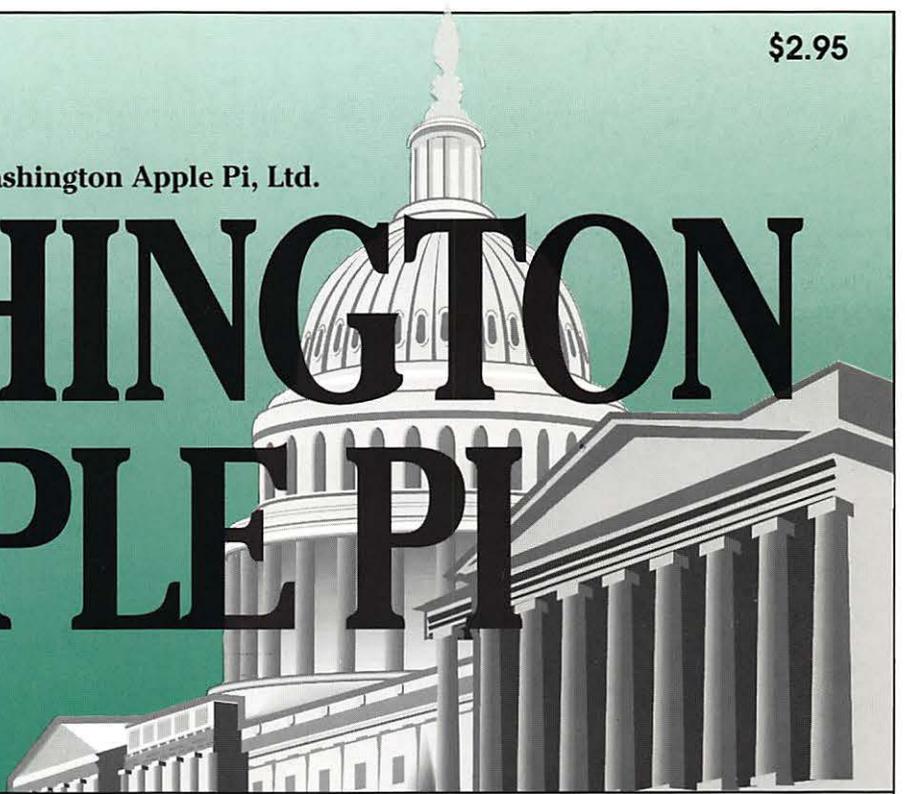


The Journal of Washington Apple Pi, Ltd.

WASHINGTON APPLE PI

Volume 19, Number 3



New Users Pages—18, 19

**Adobe Acrobat as a
Research Tool—27**

Tuesday Night Clinic—30

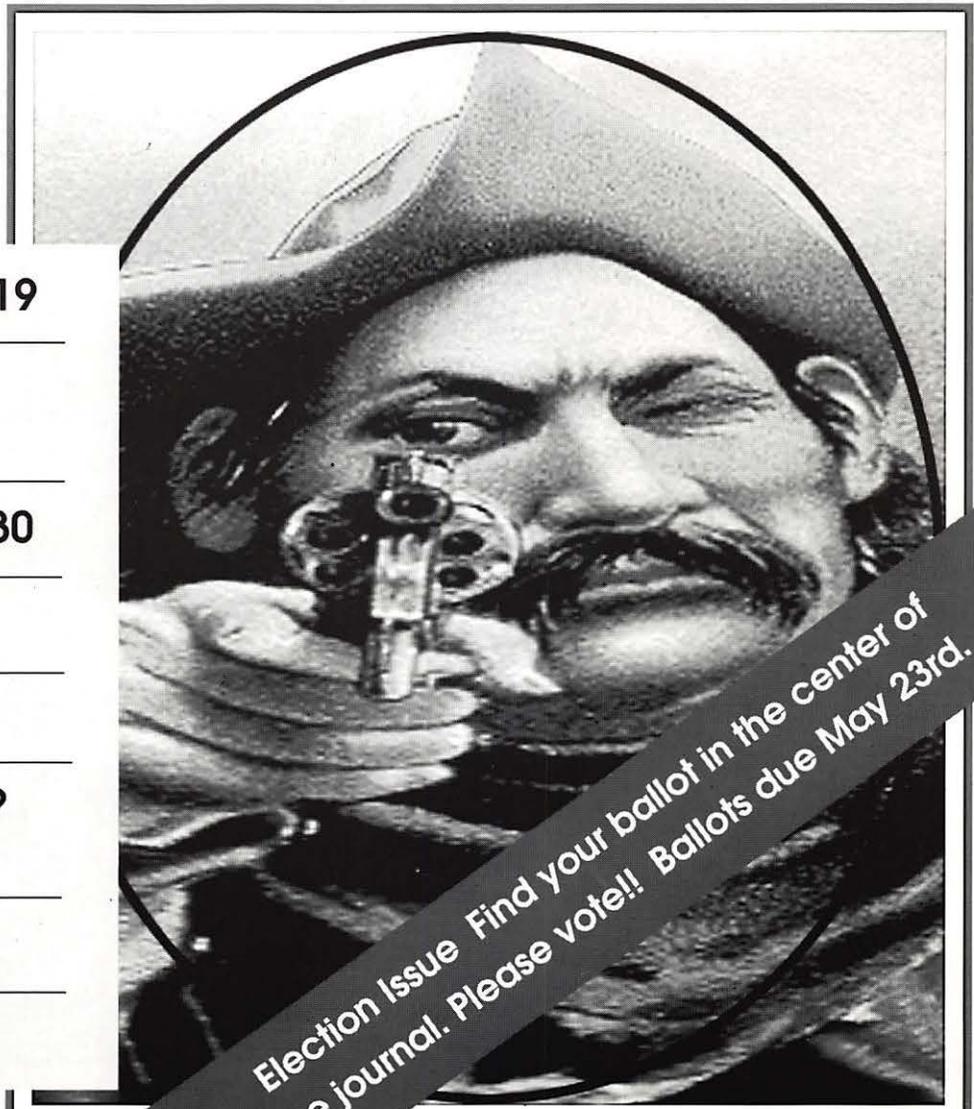
Best of the TCS—34

Graphic Tips—37

**Sick Mac—What to Do?
—55**

QuicKeys 3.5—60

3D Landscape—62



**Election Issue Find your ballot in the center of
the journal. Please vote!! Ballots due May 23rd.**

washington general meetings

May 31, 1997

Note: this is
the *fifth* Saturday

Northern Virginia Comm. College
Community & Cultural Center Aud.
8333 Little River Turnpike
Annandale, VA

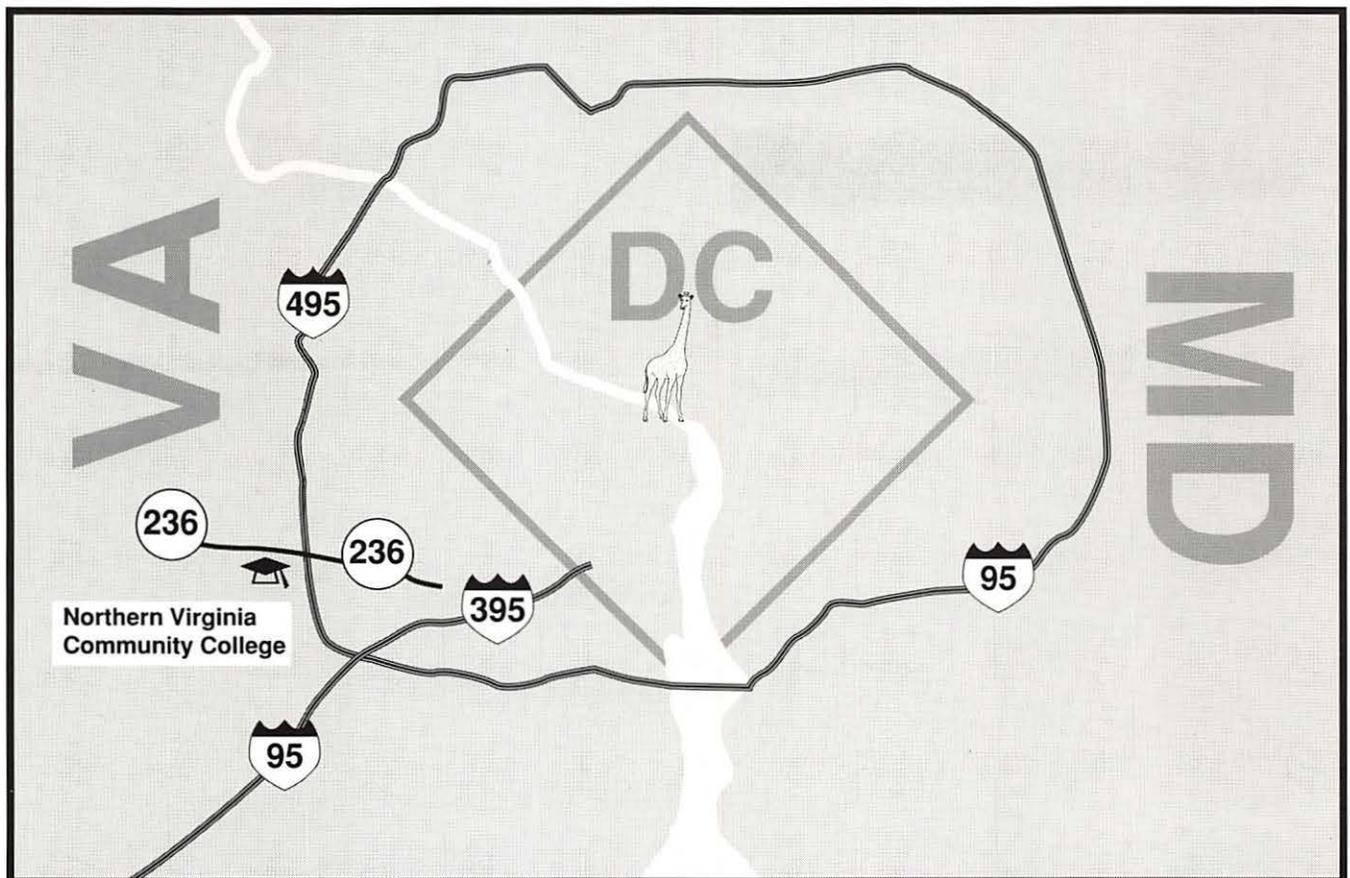
June 7, 1997

Computer Show & Sale!
9 a.m. - 2 p.m.

Promises But
No Dates Yet:
Apple, Claris,
Corel, Microsoft

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For schedule changes check the TCS or the Pi's Website at <http://www.wap.org/>



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Table of Contents

Volume 19

May / June 1997

Number 3

Club News

WAP Hotline	41, 44
WAP Calendar	42, 43
Election Insert	42a
Index to Advertisers	83
TCS Help Sheet	45
Tutorials	47
Tutorial Form	50
Classified Advertisements	83
WAP Membership Form	84

SIGs and Slices

QT February meeting	20
by Stuart Bonwit	
QT March meeting	20
by Stuart Bonwit	
Columbia Slice	21
by Steve Ocone	
Senior SIG Meeting	21
by Chuck James	
StockSIG (March Meeting)	21
by Morris Pelham	
Women's SIG	22
by Sonja Fogle	

General Interest

From the President, ... but first a word to our sponsors	5
by Lorin Evans	
BOD February Meeting Notes ...	7
BOD March Meeting Notes	7

February General Meeting Report	8
by Don Essick	
March General Meeting Report	10
by Lawrence Charters	
Additional WAP Member Benefits, Travel Discounts	12
by J. David Mudd	
Assistance to AOL Members ...	13
by John Barnes	
<i>Journal Writers' Guidelines</i> ...	14
New Users Pages	18, 19
David Ottalini	
Lou Dunham, WAP Member at Large	23
by Nancy Seferian	
Can Anyone Save Packard Bell?	25
by Scott Kelly	
Tuesday Night Clinic "Magic Show"	30
by Theresa Freilicher	
Internet Books for Teachers	70
Training Your Golden Retriever to Retrieve Email	71
by Phil Shapiro	

Macintosh Articles

Adobe Acrobat as a Research Tool	27
by Dennis Dimick	
Best of the TCS	34
by Nancy Seferian	

Graphic Tips	37
by Carol O'Connor	
Brief History of Fonts	51
by MDJournal	
Sick Mac—What to do?	55
by Tom Witte	
TechTool Pro mini-review	58
by Tom Witte	
QuicKeys 3.5	60
by Herbert Block	
3D Landscape	62
by Mary Keene	
Intuit's QuickBooks	72
by John Fazzino with Paul Gerstenbluth	

Apple II Articles

Disk File Recovery	73
by Ed Gooding	
Apple II Emulation Tips for Apple /// Users	73
by Ed Gooding	
EZ-DIF ///EZ Pieces and DIF files	74
by Allan Bloom	

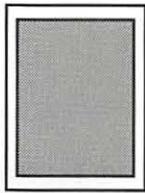
Disk Libraries

Macintosh Disk Library	78
by Dave Weikert	
Macintosh Disk Order Form ...	82

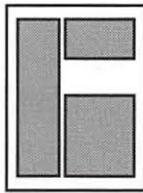
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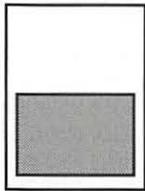
Some Orientation Possibilities



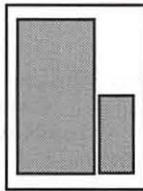
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Sixth Page	\$125	\$106	\$93	\$75

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Copy may be received as traditional mechanicals, rc-paper, velox prints, or film negatives. Negatives will incur an additional \$15.00 strip-in charge.

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Deadlines

Writers' submissions

July/August May 18

Sept./Oct. July 18

Editors' submissions

July/August May 22

Sept./Oct. July 22

Ad space reservations

July/August May 18

Sept./Oct. July 18

Camera-ready ad copy

July/August May 22

Sept./Oct. July 22

1997 ALERT—Deadlines have been changed in order to get journals to you earlier in the month. Plan your article submission accordingly. Thanks.

Washington Apple Pi

This issue of the Washington Apple Pi Journal was created on a PowerMac, proofed on an LaserWriter IINT, and produced by electronic type-setting at The Publishers Service Bureau.

The page layout program used was PageMaker 5.0, the word processing program was Microsoft Word 5.1; the principal typeface is New Century Schoolbook (10/12) for the articles; and Avant Garde Demi for headlines, subheads, and emphasis. Charlemagne Bold for drop caps.

Cover Design: The WAP Journal cover design was created by Ann Aiken in collaboration with Nancy Seferian. The Capital artwork was illustrated by Carol O'Connor for One Mile Up, which donated it for use on our cover.

Icon Guide



Macintosh



Apple Disk Libraries



Apple II, IIe, & IIGS



Macintosh Disketeria



Apple III (SARA)



General Interest

Postal Information

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Change of Address should reach us 60 days in advance of the move to ensure that your Journals continue uninterrupted.

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From the President

...but first a word to our sponsors

IF YOU WATCH the X-Files for any length of time, you realize their writers have a ready supply of story ideas courtesy of supermarket tabloids. Law & Order takes a higher road and uses the foibles of more mainstream folks as reported in the *New York Times* and the *Washington Post* for their material. I, too, am lucky for I get to use the *Wall Street Journal*, *MacWeek* and now the *San Jose Mercury* for my starter material.

I received a call from the *San Jose Mercury News* on March 12th. It is a newspaper based in San Jose,

California. Our resident transplant from there informed me that the paper prides itself on its inside coverage of Silicon Valley [further inquiries among the thoughtful elicited a consensus that their use of the word "pride" is relative]. They called the Wednesday before "Black Friday," March 14th, when Apple was to announce its second restructuring plan to 'save' the company.

Why me? Well, it seems they wanted to get an East Coast perspective on the pending disastrous news and thought that the second largest Macintosh users group in the coun-

"I received a call from the *San Jose Mercury News* on March 12th. It is a newspaper based in San Jose, California. Our resident transplant from there informed me that the paper prides itself on its inside coverage of Silicon Valley [further inquiries among the thoughtful elicited a consensus that their use of the word 'pride' is relative]."

try would be just the place to find it. Would I mind if they called after the Apple press conference on Friday and chatted with one of their reporters? Not at all, said I. The country boy in me asked if they could give



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me a clue as to what I might be asked. Oh sure, we expect Apple to announce the end of the Performa line of computers and the dismissal of 4,000ish employees; how will your members be respond to this news? Oh, replied this dummy, I can answer your first question now. The difference between a computer named Macintosh and one named Performa is about the same as the difference between an automobile named Oldsmobile and one named Buick. Well, not quite I was told; the latter two are cars and we are talking personal computers. May we call around 6PM your time? Sure.

Now before you hear the end of this thrilling tale, a brief aside for a public service announcement— you know, like one of those never-ending appeals on your public television channel.

Washington Apple Pi really asks but two things of you each year: renew your membership and vote in the annual election for officers and directors. We fantasize that you will do more than that, but that is all we really request of a member.

Of the thousands of ballots we mail to members, only around 3% are returned.

Can you do me a *big* favor? Let me know that you are alive by mailing the ballot located in the center of this magazine to the address on the envelope. I would like you to vote for some of the folks who are willing to spend a year keeping this place moving forward. I don't care who or for how many. But getting you to vote may be stretching my luck.

So all I ask is that you remove the ballot and envelope and write something— anything—on it. For example: write "Hello Beth"; she is your office manager and gets almost no personal mail. You can write "Hello Kathryn"; she is the editor of the magazine and gets no fan mail at all.

Now go to the centerfold of this Journal. Do it! I will wait.

Now where were we? Oh yes, it is Friday and what should be treated as an unfortunate, but minor event in the life of Apple is being covered like a Presidential misstep. Apple informs the world that the name used for the consumer marketing of Macintosh computers, Performa,

“We are sorry to hear that folks are to be laid off: that is no fun....We are encouraged that there is a growing body of third party hardware vendors (over seven at last count) making computers that run the MacOS. This will make owning a MacOS compatible computer less expensive, thus broadening the appeal of this computer to the general public.”

will be phased out, along with some promising technologies (my words, not theirs) like OpenDocs and QuickdrawGX. Some additional personnel cuts (a mix of full-time and part-time people) will be made. Several folks came in to the office to help me watch the news wires and assorted Internet sites to see what was being said on the West Coast so that I could sound somewhat knowl-

edgeable when interviewed. Finally the phone rang.

Err, before I finish this thing, did you do as I requested earlier, or would it help you if I frame the request in somewhat different English like they do on public television? Oh, you did it? Good, thank you.

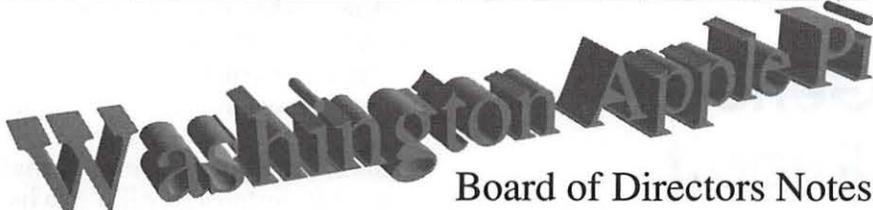
I got asked a dozen pebble stumbling questions. I heard the same Performa question again, but this time I elaborated on the differences between the way a Macintosh and a Performa are marketed. I was asked how we would be affected by the dismissal of some 2000ish people and whether we felt “abandoned” by Apple.

Tired of listening to elevendy little tales of 'horror', I offered my interviewer the following: We are sorry to hear that folks are to be laid off: that is no fun. But that is not our story. We represent members of users groups, and consumers in general, who are users of Macintosh computers. As functional end user, we want a healthy Apple Computer company developing innovative products. We want third party companies to create interesting applications which take advantage of the unique features found in the MacOS which will allow for a visual expression of the creative energies within each of us. We are encouraged that there is a growing body of third party hardware vendors (over seven at last count) making computers that run the MacOS. This will make owning a MacOS compatible computer less expensive, thus broadening the appeal of this computer to the general public. We hope that the decisions being made by management will strengthen the company to those ends.

I located a copy of the Saturday edition of the paper. I ended up on the cutting room floor.

Now, don't forget to mail in that ballot!

Thanks. —Lorin Evans



Board of Directors Notes February 1997

Directors present: Lorin Evans, Don Essick, Dave Weikert, Jon Thomason, Blake Lange, Charles Froehlich, Lawrence Charters, Dale Smith, Dave Ottalini, Lou Dunham, Tom Witte, J. David Mudd
Directors absent: Ron Evry, Jim Ritz
Members present: Nancy Seferian, David Harris, Ellen Baniszewski, Theresa Freilicher

Old Business

What to do for the Pi's 20th Anniversary? As the oldest personal computer users group on the planet, and the only large group that still supports the Apple II, IIGS, ///, Macintosh, Power Macintosh, MacOS clones, Newton, etc., ideas on how to celebrate Washington Apple Pi's first 20 years are being solicited, together with volunteers to turn these ideas into reality.

New Business

The Board of Directors selected Theresa Freilicher, a new Pi member, to chair the 1997 Election Committee. Other members include Alden Bestul, Robert Klothe, David Maglott and Jon Bernstein. The Board selected Henry Ware to chair the Election Challenge Committee.

The June 1997 Computer Show and Sale is fast approaching, and the Board agreed that MacOS vendors (Apple, SuperMac, Motorola, Power Computing, etc.) should be approached to see if they want a presence at the show. Ads will appear in the Journal and on the Web server announcing the show in advance, and a discount coupon for the show will be posted on the Web server.

Nancy Seferian was appointed the new TCSO (Telecommunications Sysop), replacing the retiring Jon Thomason.

David Harris was elected by the Board to fill the vacant Director slot. ■



Board of Directors Notes March 1997

(Preliminary; the BOD had not approved the minutes as of this writing)

The meeting was called to order at 8:00 p.m., a break from our one-meeting string of starting meetings on time. On the other hand, the half-hour pause was devoted to a good cause: making a dent in cleaning out the second Tutorial Room. Now, instead of being overstuffed with 20 years of digital debris, it is merely stuffed.

Directors present: Blake Lange, Charles Froehlich, Dale Smith, Dave Ottalini, Dave Weikert, David Harris, Don Essick, J. David Mudd,

Jim Ritz, Jon C. Thomason, Lawrence Charters, Lorin Evans, Lou Dunham, Tom Witte

Directors absent: Ron Evry
Members present: Ellen Baniszewski, Henry Ware, Nancy Seferian, Steve Fink

Old Business

Lou Dunham requested that the minutes reflect an exceptionally broad and tasty selection of cookies were on hand.

The 1997 Pi Election appears to be proceeding on schedule. While only three names were submitted prior to the February General Meeting (the deadline for nominations)

for 15 positions, by the end of the day a full slate of candidates were nominated.

The Board held more discussions on a possible celebration of the Pi's 20th Anniversary.

New Business

Bill Baldrige, in his will, requested that his award-winning shareware offering, VendorDA, be maintained. Bill's family, in discussions with President Lorin Evans, discussed the idea of Washington Apple Pi taking on the task of maintenance. Lawrence Charters suggested this was a manageable project, provided the Pi set up a standing committee, similar to the TCS Committee, to do the necessary work. The Board agreed to some necessary background work prior to making this a formal Pi project. ■

February General Meeting Report

by Don Essick, VP Macintosh

THE FEBRUARY General Meeting of Washington Apple Pi, Ltd. was held on February 22, 1997 at the Ernst Center, Northern Virginia Community College at 9:00 AM. As usual, we opened with the ever popular Questions and Answers session, ably hosted by our Secretary and all around guru Lawrence Charters. A hot topic was the newly re-

leased System 7.6. Many of us were "early adopters" and have had varying degrees of success. This article, in fact is being written in WordPerfect 3.5.3 on a Performa 6116CD running MacOS 7.6. It took a while to get everything stabilized, especially OpenTransport. I had a difficult time getting connected to the Explorer Service, but only because I mixed and matched the stuff on the included Internet Connection Kit with MacOS 7.6. When I threw away the Apple Internet Dialer and went back and followed the instructions from the TCS on installing OpenTransport, everything worked just fine!

We also note with deep sorrow the passing of long time Pi member, friend and colleague Bill Baldrige. Bill (or "Baldy" as he was often called) had been active in the Pi for many years and will be greatly missed. Our sincere condolences to his family and friends.

This meeting was also the last chance for members to submit nominations for the upcoming elections. A total of 5 officers and 10 board member positions need to be filled. Hopefully, Lawrence received enough nominations before the end of the meeting to fill the slate. If the past few elections are any measure, all you need to do to get elected is to run. We've barely had enough nominees to fill

the slate. Yes, I am running for reelection. What with the downturn in Apple's fortunes, it's getting harder and harder to find vendors, but we always manage to come up with something interesting. Apple seems to have gotten the word that we are interested and willing to listen to what they have to say. Major Mac players like Adobe and of course Claris are aggressively developing for the MacOS, but the recent waffling on the direction of the MacOS left many developers confused and wary.

Fortunately, our two presenters for February took the opposite approach. Randy Zeitman of Mariner Software and Tess Elkins of Charles Schwab came to demonstrate that the Mac is alive and well. Randy took the stage first to demonstrate the current release of MarinerWrite (1.4.5). Randy is definitely an enthusiast for his product. He took a new box from the case he brought, ripped off the shrinkwrap and proceeded to install the product from the two installation disks. (I'd like to see Microsoft come to a meeting and do the same with Word!) In about 2 minutes he restarted and brought up the application. The entire program takes up about 2 megabytes on your hard disk.

MarinerWrite is unusually feature-rich for a product which runs in only 2 megabytes. It has such nice features as 10 levels of undo, split window editing, styles and almost all of the goodies you normally find in any modern word processor. Randy admitted that there are a few features like mail merge and tables that are coming in a future release. One feature I especially liked was the ability to set up a stationery document as the "default document." For example, if you set up some stationery with a logo and heading, date, etc., you could then set this as the default document. Then, every

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time you select new from the file menu, you get a blank piece of stationery. I know, you can do this by selecting a template in WordPerfect or opening a stationery document in ClarisWorks, but this appeals to me for some reason.

Randy then proceeded to demonstrate right across the menu bar all of the features and *tchachkes* ¹ in MarinerWrite. Apparently he was very successful. He brought two cases of product with him to sell at the meeting and sold them all! Oh, I forgot to mention, MarinerWrite is also AppleScript aware. If there's something special you want to do, you can write an AppleScript to handle it.

Tess Elkins of Charles Schwab was up next demonstrating E-Schwab and Street Smart, software which allows you to track and trade your investments online with the Charles Schwab, Inc. Brokerage firm. Tess explained that E-Schwab and Street Smart are actually mostly the same product. The difference is that with E-Schwab, you are a self-directed, do-it-yourself investor. The Street Smart software is supplied to brokerage clients when they open an account. (If you mention that you saw the demo at the Washington Apple Pi meeting, you get it for free!) This software is brand new. The Mac version has only been out since January, although it has been available to the dark side of the force for quite some time.

You can access Schwab's server through a dial-up connection or the internet. Internet connections require a browser which supports SSL (Secure Sockets Layer) encryption, such as Netscape Navigator or Microsoft Internet Explorer. The software and service from Schwab pretty much covers the gamut of investing. You can get quotes on a pay-as-you-go basis for immediate quotes or 15-minute delayed for free.

The software allows you to input your portfolio of stocks, bonds and mutual funds and track their performance over time, buy or sell, do research on stocks, bonds or funds, download statements and transaction histories and access most of the popular investment services both free and for a fee. It also keeps track of the important information necessary to give Uncle Sam his pound of flesh on April 15 by tracking and exporting the information necessary to file Schedule D.

In addition to tracking your Schwab investments, you can also track other investments such as your 401K plan at work by entering them into the program. You just won't be able to do as much with them as with a Schwab account.

The meeting concluded with the drawings for goodies supplied by our guests and other vendors: Dennis Kruse was the winner of a free copy of MarinerWrite. Microsoft Internet Explorer 3.0 CD-ROMs went to Georgia Sadler, William Pate, Ed Kelty, Atilla Horvath, Rich Braq and Margaret Davison. John McDonnell received *Magic Cap Complete* and Bill Wydro took home a copy of *Symantec Anti-Virus for Macintosh*.

In-Control was won by Gary Nooger and *Country Style Living* Windows CD-ROM went to Lewis Norman. *Country Style Gardening* CD-ROM for Windows went home with Regina Taft. The *DUST* Game CD-ROM was won by Richard Payne and the MacFair T-Shirt went to Susan Kaysoo. Last but not least, the book *On the Road* went to John DiBella. Congratulations to all of this month's winners.

Next month we will have presentations by Aladdin Systems,

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makers of Stuffit Deluxe and Spring Cleaning and by Metricom, makers of Ricochet, a product which offers wireless access to the World Wide Web. We hope to see you there. I will be out of the country and Tom Witte has graciously offered to run things while I'm away. Of course I need to thank all of those who help make these meetings possible: my right-hand man and son, David, our office manager, Beth Medlin, Bill Wydro and the other volunteers who lug the equipment from the Pi Office, and to the staff of the Ernst Center and everyone else who supplies their energies and talents, thanks. ■

¹ Yiddish word used for knickknacks or other collections of objects.

March 1997 General Meeting Report

by Lawrence I. Charters

MEETING JUST a couple days after a snowy start to spring, bleary-eyed Pi members arose early to find a warm, sunny, and extremely windy day for the March General Meeting. From the sleepy looks evident during most of the meeting, it seemed early morning sunlight and cherry blossoms were not as high on everyone's list of things to experience as a few more minutes of hibernation.

Tom Witte, filling in for absent Mac Vice President Don Essick (Don claimed he had to work, of all things), served as master of ceremonies for the meeting. Tom had all the equipment set up in near record time, aided in no small part by the fact that both the vendors, Aladdin Systems and Metricom, came prepared with fully pre-configured PowerBooks. Metricom had one of the new PowerBook 3400c laptops, which drew several admiring looks. One interesting discovery: the PowerBook 3400c does not have the unusual, flat Video Out port used in previous PowerBooks. Instead, it uses a small, SVGA-style D-shell Video Out connector. Attempts to make other discoveries, including some requiring screwdrivers, were gently thwarted by Metricom's Nicole Hajj.

Questions, Questions

Over the past several months, the opening Question and Answer session has featured a recurring theme: how and what to upgrade.

Generally speaking, the answer has been: if you have any kind of Power Mac, you really should invest in MacOS 7.6. And if you have a Power Mac, you really need to have at least 24 megabytes (or more) of memory to exploit the capabilities of the computer. Given the very low cost of RAM, Power Macs have essentially no limits: upgrade to the latest, and blaze into the future.

But a new theme is emerging: if you don't have a Centris, Quadra or Power Mac, you should also think about upgrading (replacing) your computer. While the Pi still supports all Apple computers, the tidal wave of new software and hardware is all but washing away commercial support for anything that doesn't have at least a 68040 processor (used in Centris and Quadra machines) or PowerPC processor (used in Power Macs). Even something as simple as a "cheap printer" now requires plenty of RAM and MacOS 7.5 or better, since the "cheap" printers (DeskWriters, StyleWriters) usually are inkjet machines with RAM-based printer drivers that require System 7.5 or better. Usually reliable rumors indicate MacOS 8.0 will require at least a 68040 processor.

On the bright side: a Power Macintosh (or equivalent machines from SuperMac, Power Computing, APS, Motorola, etc.) is one of the most powerful computers ever built, yet most models costs less than the original Macintosh in 1984. Brand-new models are now available for

less than a thousand dollars, so the cost-effective way of upgrading your old machine may be to buy a new one, and use the old one as a backup.

Cleaning Up With Spring Cleaning

Peter Thomas of Aladdin Systems (dev.support@aladdinsys.com) demonstrated several of his company's utilities, starting with *Spring Cleaning*. Originally released by another company as *LaundroMac*, *Spring Cleaning* is a comprehensive set of utilities for: uninstalling applications; resolving aliases; trimming unnecessary code from FAT (combination regular and Power Mac) programs; removing empty folders; removing unused fonts; removing Help files; matching orphan files with programs that can manipulate them; and cleaning up Preferences.

Peter phrased *Spring Cleaning's* utility in terms of the increasing complexity of the Macintosh operating environment, but this probably isn't accurate. While MacOS has become more complex over the years, it still has a very simple, elegant look, and is still very easy to use. What has become more complex: the kinds of things people try to do with their Macs. Users of other computers may only do a couple things with their machines; in contrast, Mac users may have purchased their computers for simple uses (writing letters, automating their checkbooks) but soon branch out into a huge range of activities, from MIDI music and sophisticated drawing to desktop publishing (one of the most complex tasks any computer can do) and Internet communications (another complex task, made all the more complex by the rich variety of things that Macs can do on the Internet). Mac users experiment, and coping with the residue of experimentation is where *Spring Cleaning* comes in handy.

The MacUninstaller option, for

example, examines all your connected volumes, lists all applications, and allows you to select those you wish to "uninstall." Once selected, *Spring Cleaning* not only removes the application, but also all preferences and support files associated with the application. One wag suggested Aladdin add a special "Remove Microsoft" button, to delete everything written by that company (Microsoft is famous for scattering files everywhere during installation), but Peter diplomatically pretended not to hear.

Peter admitted one portion of the program, the Font Remover, wasn't too useful. It really wasn't intelligent enough to properly analyze font types (PostScript, TrueType, bitmap) and determine which were naughty and which were nice, but he said this would be corrected in version 2.0, which would be free to all registered users. Peter also said a free patch to bring *Spring Cleaning* up to version 1.0.1 was available on Aladdin's Web site (<http://www.aladdinsys.com>), but as of this writing that wasn't the case. The update, however, is available in File Transfer Area 31 of the Pi's bulletin board, the TCS.

Aladdin's most famous program, the Mac-standard compression utility *Stuffit Deluxe 4.0*, was only briefly demonstrated, but Peter managed to surprise many in the audience with what it can do. Most are only familiar with the freeware *Stuffit Expander*, or possibly with the shareware *Stuffit Lite*, and had never seen the full *Stuffit Deluxe* in action. Compressing a file by adding ".sit" to the file name was a surprise, as was decompressing a file by just removing this suffix. Opening a *Stuffit* archive in the Finder and viewing the contents, as if it were a folder, was another surprise. One thing he failed to mention: the full *Stuffit Deluxe* will compress and decompress virtually every kind of Internet archive a Macintosh user

may care about, with the exception of MIME mail attachments. Every serious user of the Internet should invest in this versatile utility.

Though he lacked a live Internet connection, Peter gave a credible demo of *CyberFinder*, an interesting utility to "bring the Internet to the desktop." With *CyberFinder* installed, Internet users can create libraries of their favorite Internet sites, and connect to sites by just clicking on a link. Where *CyberFinder* differs from similar bookmark utilities is the ability to collect all the E-mail, FTP, Gopher and Web addresses associated with a topic in a single library. These libraries, in turn, can be shared with your customers, friends, or coworkers. This is a Very Neat Trick.

No Wires! No Signal!

Nicole Hajj of Metricom (nicole@metricom.com) gave one of the most extraordinary non-demonstrations ever seen at a General Meeting. What she *wanted* to show was Ricochet, a new type of wireless telecommunications service that directly connects users to the Internet, without telephones, for a flat-rate of \$29.95 a month. After several days of flawlessly demonstrating Ricochet during FOSE '97 (Federal Office Systems Expo, at the Washington Convention Center), technical details thwarted plans to show this to the Pi: the Annandale, Virginia, region is "too far" from the nearest repeater sites for a connection.

All that will change over the next few months, said Nicole, as Metricom works out agreements with local utility companies to place their repeater boxes, one every third of a mile, at the top of streetlight poles throughout the Washington Metro region, including Maryland,

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DC and Virginia. (She mentioned specifically that Montgomery County and DC were already fully covered.) One of the repeater boxes, a sturdy white block about the size of a picnic basket, was on display in the lobby. With a single antenna protruding from the top, it lacked only a set of wheels to turn it into a cute little *Star Wars*-style robot. Nicole and an accompanying engineer attempted to raise the repeater high enough to snag a signal from the nearest station, without success.

Aside from the price — \$29.95 a month, for unlimited time — the other thing that sets Ricochet apart is the speed. Virtually all other wireless computer links run over cellular phone links, with a top speed of 9,600 bps (and typically only 2,400 to 4,800 bps). Ricochet, by comparison, operates with a top speed of 28,800 bps, and Metricom engineers

have experimented in the lab with speeds nearly four times faster.

What makes all this possible is the Ricochet "modem," a wireless transmitter about the size of a cell phone. Unlike other available options, the "modem" has nothing to do with the telephone system: it transmits and receives packets over the same unregulated radio bands used by wireless crib monitors and garage door openers. You can either rent the "modem" for \$12.50 a month, or buy it for \$299. Attach it to your PowerBook or Newton with Velcro, and you can spend all day on the Internet while riding Metro, or watching tourists on the Mall. For many users, a Ricochet account may be less expensive than a second phone line, a regular modem, and even the cheapest traditional ISP (Internet Service Provider).

The service includes: unlimited Internet usage, an Internet POP E-mail account, a licensed copy of Netscape Navigator, and access to Metricom's newsgroups, FTP services and other services. For more information, give Nicole a call at (703) 918-9729, or send her an E-mail, or visit Metricom's Web site, <http://www.metricom.com>.

Next Month

The allegedly working Don Essick (on a spring day?) left word that next month's General Meeting guest will be Adobe. Early risers will learn about *Photoshop*, *PageMaker* and *Illustrator* or, possibly, making sun-dried bricks.

Drawing Prizes:

As usual, there were drawing prizes. Winners dutifully filled out forms so we could mention which vendors contributed which prizes, but nature contributed something, too: wind. As Tom Witte was attempting to hand off the completed forms in the NOVA parking lot, a sudden gust blew the forms out of his hand, and many were last seen

heading north at about 30 miles per hour. This is a reconstructed listing.

- Stuffit Deluxe* (Aladdin Systems): Jim Schroff
- CyberFinder* (Aladdin Systems): Jonathan Ross
- Spring Cleaning* (Aladdin Systems): Scott Robinson
- Alone in the Dark* (MacPlay): Pat Goddard
- Illustrator 6 Wow! Book* (Peachpit Press): Steven Thorpe
- Mac Bible Book of Games* (Peachpit Press): NOVA parking lot

- Word 6 Step by Step* (Microsoft Press): Susan Kayser
- Software Engineering* (Addison-Wesley): NOVA parking lot
- Hard Disk Toolkit Personal Edition* (FWB): Attila Horvath
- What's On the Internet* (Peachpit Press): Dana Howe
- T-shirt (unknown): David Harris
- Norton Utilities for Windows '95* (Clueless, Inc.): Dennis Kruse
- Symantec Healthy PC* (Clueless, Inc.): Don Libeau ■



Additional WAP Member Benefits Travel Discounts

by J. David Mudd

YOUR MEMBERSHIP in WAP is becoming more valuable. This month we're announcing some additional member benefits. Using the power of our group purchasing power, we've negotiated some great savings on hotel accommodations and car rentals nationwide. This is a free and exclusive benefit to WAP members.

In the next issue of the Journal we will have more details including WAP's special ID numbers to give when making reservations in order to claim the discounts. (Our accounts are still being processed at publication time.) In the event members want ID numbers before the next Journal publication then they will also be made available on request to members via e-mail to office@wap.org.

It's More Than Great Prices... It's Great Values.
Hotels — Great Getaways are the

Perfect Balance of Enjoyment and Value, or Simply Put, Fun at a Fantastic Fare.

As travel costs have risen in recent years, reaching this balance creates a challenge—one that we hope these discounts will help you overcome by cutting your cost for lodging on virtually every trip. We've applied for discounts at a number of nationwide chains which should result in discounts ranging from 10% to 30% off regular room rates.

You'll be able to choose from many of the nation's most exciting destinations, or try an off-the-beaten-path locale perfect for a little rest and relaxation. Advance reservations are required. Discounts are subject to program room availability and some blackout periods may apply.

Car Rentals — You Hold the Key to a World of Benefits from Hertz.

Planning a family vacation or an out-of-town business trip? If your



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International:

- Where such discounts are permitted by law, a 15% Discount in Europe and a 10% Discount at all other participating international locations on Published "Basic Time and Kilometer" Rates or "SUM Daily Rates."
- 5% Discount on Hertz Affordable Europe and Hertz Affordable Australia Weekly Rates.
- From time to time, Hertz may add discounts in specific countries subject to agreement by each country's Hertz affiliate or licensee.

These discounts are available at all participating Hertz locations. We also expect that Hertz will be providing us with added value certificate offers such as dollars off and car class upgrade in addition to our member discounts.

More Benefits To Come

In the near future we hope to be able to expand on these member benefits and bring you even more. All with the goal of making your WAP membership even more valuable. ■

plans include renting a car, then take advantage of special membership savings and services from Hertz.

At Hertz, you'll find time-saving options like Computerized Driving Directions, Express Return, and Hertz #1 Club Gold. More than 5,000 locations, Frequent Traveler Miles and 24-Hour Roadside Assistance means Hertz has it all. And whether you need a compact, full-size, or specialty vehicle, Hertz offers a wide variety of new cars to handle all your rental needs.

Hertz also makes sure you're enjoying special worldwide savings. As a WAP member, you'll receive discounts off your rentals in the U.S. and around the world as follows:

In the United States, Excluding Puerto Rico:

- 10% Discount on Hertz Daily Member Benefit Rates (all car classes).
- 10% Discount on Hertz Standard Daily, Weekend, Weekly, and Monthly Rates (all car classes).

In Canada:

- 10% Discount on published "Basic Time and Kilometer" Rates, except rentals of Class A cars.

Assistance to AOL Members

MANY PEOPLE find the America Online service to be a daunting experience. While AOL has worked hard to make the experience easy with very simple installation procedures, telephone customer assistance, live help while online, online help bulletin boards, etc., there are occasions when users really need a local person "looking over their shoulder" to solve some vexing problem.

In the spirit of making life easier for folks who want to use AOL or just try it out, Pi member John Barnes has volunteered to assist users of the America Online Service. This assistance is offered in four forms:

1. Clinics at the Pi office on selected Sundays. The hours are from 10 am to 1 pm. No prior ap-

pointment is necessary, users may bring their own computers if they wish. This assistance is available to Pi members and the general public. It is intended for people who are experiencing difficulty with setting up their software and signing on to the service. Online content areas will be explored if interest warrants and there is sufficient time. Specific dates and times will be determined. Check the schedule on the Explorer Service, the TCS, or contact the Pi office. Ask for "AOL clinics."

2. Hotline telephone assistance (available only to Pi members).

Sessions are limited to 15 minutes, they must take place between the hours of 8 pm and 11 pm on weekdays evenings. If your call is not answered please leave voice mail so

that I can get back to you. The number is 301-652-0667. This assistance is also offered primarily for those folks who cannot get online or who find that AOL's technical assistance is giving the answers that they do not understand. People requesting this service should have their computers turned on and their AOL client software should be active if this is at all possible.

3. Online Immediate Messaging - my main AOL screen name is JDBarnes. You can refer to my online profile for others that I use regularly. If I happen to be online when you call you can request help by sending me an "immediate message." Online workshops of this kind have been found to work very well. Such sessions are, however, limited to 15 minutes duration. Obviously this kind of help only works for people who are able to get connected and who are familiar with Immediate Messaging.

4. E-mail inquiries - E-mail messages requesting help can be sent to AOL name JDBarnes. These can be difficult to answer because it is sometimes difficult to see just what it is that the requestor wants. For this reason e-mail inquiries should always include the requestor's contact information - Full Name, Telephone number, best times to talk, etc.

This offer of assistance is an experiment. It is being offered in the spirit defined by countless Pi Hotline volunteers in the past. If the demand is too great it may be necessary to recruit more helpers. If it proves to be too time-consuming it may have to be abandoned. Offers of assistance from other Pi members who want to help with this activity will be gratefully accepted.

Thank You
—John D. Barnes

Washington Apple Pi Journal Writers' Guidelines

WELCOME TO THE Washington Apple Pi *Journal*. If you are interested in submitting an article to the *Journal*, you have our thanks. This Guide builds on work done earlier by Tom Piwovar, Peter Cook, Frank Potter and others. For their assistance, we are grateful.

We hope that this reference guide will answer any questions that you may have about writing for the *Journal*. However, if you have a question that isn't answered here, please do not hesitate to contact any of the editors, through E-mail, a message on the Journal board of the TCS, or by phone. We look forward to receiving your article and hope that you have fun writing it.

Article Format

All material must be supplied in machine-readable format. For other than routine graphics material (screen shots), a hard copy printout of the graphics is highly recommended.

Apple II & III Submissions

Disk Format: 3 1/2" Unidisk. **Text Format:** ASCII text. At present, we are still looking for an Apple II Editor, so please be kind to the Mac operator who will be converting your article. Be *sure* and include your name, and preferred article title and byline at the start of the text. **Graphics Format:** If you have a good graphic, please scan it in or have it scanned in at the office. Frequently a photocopied copy will scan better than one out of your printer. We have OCR (Optical Character

Recognition) software for turning a printed page of text into an electronic file. We can handle GIF files quite nicely.

Macintosh Submissions

Disk Format: 3 1/2" disk 400K, 800K or 1.4MB. **Text Format:** save your article in (preferably) Microsoft Word 5.0 format; all mainstream Macintosh word processing software can save files in this format, usually as a user-selectable option. If this is not possible, an ASCII text file is acceptable. Although the *Journal* is produced in *PageMaker*, we would rather that you did not use the program to produce the article unless you have cleared it with the Managing Editor first. Be *sure* and include your name, and preferred article title and byline at the start of the text. Do *not* embed graphics within the article; instead, all graphics should be included as separate files. **Graphics Format:** MacPaint, MacDraw, PICT, TIFF, EPS. Please be sure to include a text file with suggested captions for your graphics. Large TIFF files are hard to handle and may not get used. Keep it to 100K, please. **E-mail:** do not E-mail articles to the editors without clearing this with them first. E-mail attachments often don't arrive in usable form, and large attachments are difficult to deal with.

Other Computers

We are not absolutely locked into Apple computers for receiving material. If you have something to say that you think will be interesting to *Journal* readers, but do not have

access to Apple equipment to write it up, please contact one of the editors and let us know. We'll work something out.

Submitting Articles

In order to produce and distribute the *Journal* on time, the editorial review board has a schedule of deadlines. We ask that you work with us to meet those deadlines by submitting your articles according to the dates listed in the *Journal*. The calendar section of each *Journal* will identify the writers' and editors' deadlines for the next issue. You will notice that the writers' deadline is approximately one week before the editorial deadline and that the editorial deadline is several weeks prior to publication. This lead time is necessary so that readers may have a copy of the *Journal* as close to the cover date as possible.

In extreme situations, we can bend these requirements a little, but would prefer not to have to. Our hope is to publish all articles that are submitted to us, and we will try to accommodate late articles when possible. But keep in mind that the editorial review board is staffed by volunteers who have other obligations and commitments.

There is an upload area on the TCS, the Pi's bulletin board: File Area 4, *Journal* Submissions. If you can submit your material through the board, it will make everyone's life immeasurably simpler and more elegant. If you do use the TCS, please post a message (or send an E-mail) to the appropriate editor, telling them that your article has been uploaded and under what name. And to repeat, if your article has other than routine graphics, a hard copy printout of your graphics would be helpful.

Critical Material to Include:

- Your name.
- Your address.
- Your E-mail address

- Your telephone number
- A suggested title.

Also of possible use: a sentence about yourself to follow the article (optional); which types or models of computers your material relates to; graphics (drawings, screen shots, public domain clip art). We love graphics; more to the point, so do readers.

Estimating Length of Article

If you include graphic material (which we encourage), you can use the following table to estimate how much room it will take up on the page, and how that will affect the length of your article:

These lengths are approximate and are intended to serve as guidelines only. Space is allowed for the article heading and an average number of subheads. Odd-length articles are difficult to place. Character count means actual count, not the file size reported by the operating system.

Journal Styles

All of these style suggestions are just that: suggestions. Some of them cannot be followed unless you are composing your article on a Mac, and others may just seem too complicated. Not to worry. Do the best you can, and we will take care of the rest. The more closely you can follow these suggestions, the easier it will be for us to do that.

Except for common abbreviations and acronyms, a long name should be spelled out the first time it is mentioned in the article with the abbreviation or acronym after it in parentheses. Numbers, including money, should be written with commas where appropriate: 1,000 or \$13,450. If a number series occurs within a paragraph, number the series using "(1)," etc.

- Do not pre-format your document (i.e., do not put in

columns, text boxes or pull-quotes). The editors undo them all.

- Do not indent by adding spaces or tabs. If this is a problem, don't bother to indent—let us do it. One space only after punctuation marks. Two spaces after periods confuses typesetting practice.
- Do not use an extra carriage returns between paragraphs. Periods and commas always go inside quotation marks. Other punctuation marks go outside, unless they are part of the quotation.
- When you quote a person or text, please be sure to get the quote exactly correct. We don't have the time or resources to check it ourselves.
- Use ellipsis (Option/Semicolon) without extra spaces (...). At the end of a sentence, use a period as well (....).
- Use an en dash (–) for phone numbers (Option/Hyphen). Use an em dash (—) (Shift/Option/Hyphen) within text. No space before or after. Add subheads where you think they might be useful.
- Italicize all publication names. Italicize all software names (*PageMaker*, *AppleWorks*, etc.).
- Place an "n" at the end of articles (to be converted to dingbat). Repeat: Do not use more than one space between sentences, or after punctuation marks. No space before punctuation marks.

- Do not use ALL CAPS and quotation marks, unless part of trade or product name. This is a convention that went out with the type-writer.
- Beware of editorializing. If in doubt, make a note to the Managing Editor.

“It’s” is an abbreviation for “it is” or “it has.” It’s frequently misused, and its incorrect use bugs the editor. A few other grammatical references which are commonly misused: “hopefully” is frequently misused. You wait hopefully for the Wells Fargo wagon; it is hoped that the word will be properly employed in the *WAP Journal*. Also, “presently” does not mean currently—it is an adverb denoting a future time: At present, you wait hopefully for the Wells Fargo wagon; it is hoped that it will be along presently.

Footnotes—they are difficult to handle. They can be added as endnotes to the article, but they should be avoided, if that is possible. Barring that, they should be minimized.

Legal concerns: Please do not submit material that is not your own or that bears someone else’s copyright notice. You may copyright your own material, but we will print it only if permission is granted to reprint in other publications, with appropriate citation. Should you have programming code in your article, please include written permission for us to print it. Otherwise the printing of your article will be delayed until we receive written permission.

We will not publish material which we consider to be offensive or which addresses Pi politics. This is not censorship—just a matter of good taste.

Software Reviews

Essentially, what the reader would like to know is whether or not this is an appropriate program for the user, and under what circum-

stances it is useful (or not, as the case may be). It would be useful to have your judgment on the level of user it is targeted for (novice, average, expert) and how well it does its job. If you have had occasion to call on the publisher for support, comment on the quality of that support. Try to give the reader the information you would look for, if you were in the market for this kind of program.

- Name of Program (and version).
- How much have you used it? A few hours? A few weeks? Short description (word processing, page layout, 3D graphics, etc.) What does it do? How well does it do it (if possible, contrasted with similar programs)? What do you like most about it? What do you like least about it? Do you recommend it, and for whom? Ease of use? Quality of documentation? Help files available?
- A sidebar summary of the package at the end of your article to include: Name & address of publisher, E-mail and Web addresses, telephone number (800 number if possible).
- Copy protected in any way?
- Compatibilities, if known (memory demands, system software requirements, Power Mac-only, etc.).
- List price and street price, if known.
- Hardware and/or other software and peripherals needed to use the package.

Glossary:

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 Apple IIGS, Apple IIe, Apple II+
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 CAD (all caps)
 database
 demonstration (not Demo)
 demonstrated (not Demoed)
 DIF (all caps)
 EPS (Encapsulated PostScript)
 GameSIG
 HyperCard
 HyperTalk
 IBM-PC
 LaserWriter
 Mac (not MAC)
 MacOS (System 7.5 and later)
 Mac Q&A (no spaces)
 March 15 (not March 15th)
 MB (Megabyte)
 MHz (megahertz)
 NeXT computer
 online (not on-line)
 OpenDoc
 Open Transport
 PageMaker
 PICT
 Power Mac (not PowerMac)
 PowerPC (the chip, not the computer)
 PostScript
 QuickDraw
 QuickTime
 RAM (all caps)
 ROM (all caps)
 SCSI (all caps)
 ShareWare (or shareware)
 SIG (Special Interest Group)
 SIGs (plural form of all-capitalized abbreviation that is preferred)
 TIFF (all caps)
 word processing; word processor
 WYSIWYG (What You See Is What You Get) (to be distinguished from WYSIWYWL TG, What You See Is What You Would Like To Get, and WYSIWYOG, What You See Is What You Occasionally Get). ■

washington **A**pple pi

Gymnasium, Northern Virginia
Community College
8333 Little River Turnpike
Annandale, VA
(Exit 6 West from I-495)

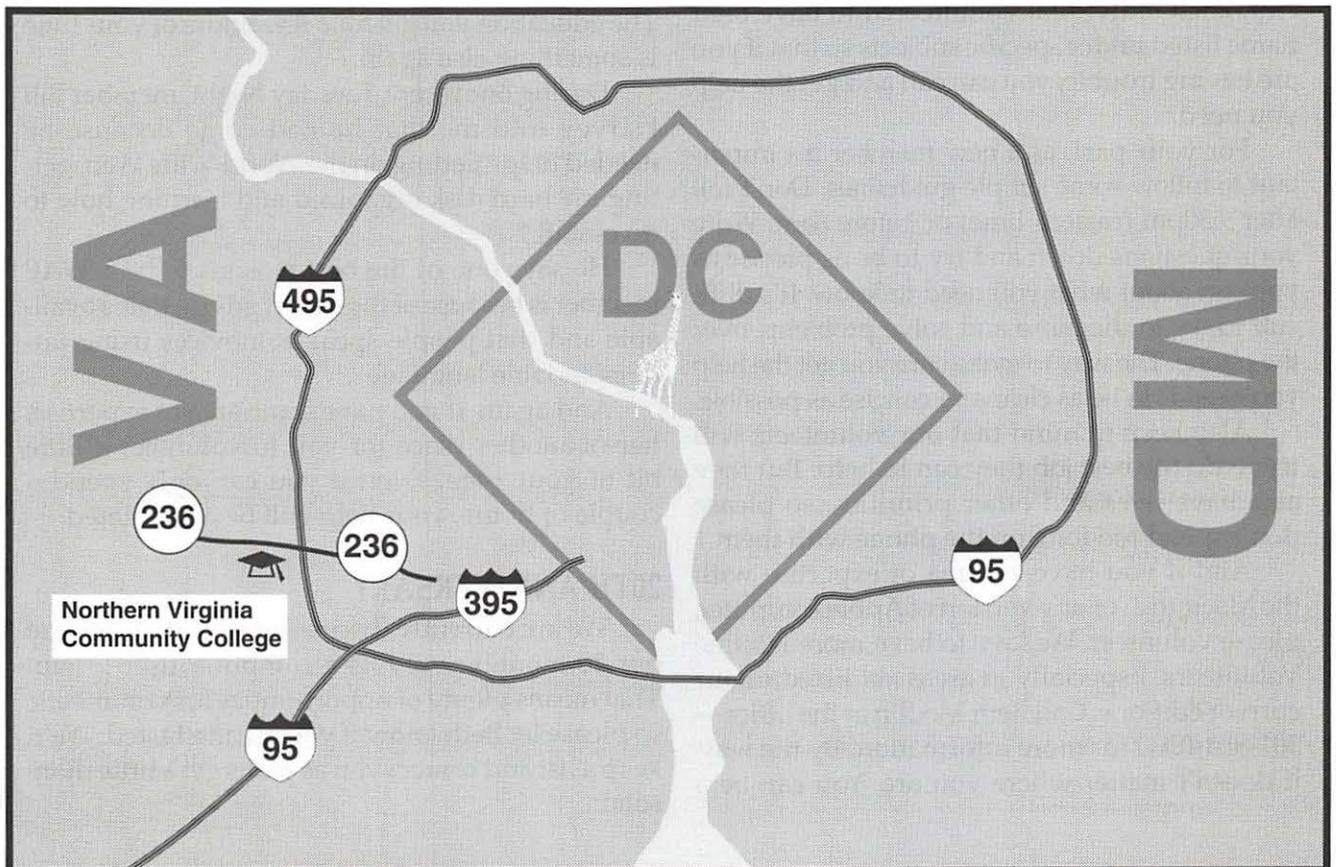
Saturday, 9 to 2
June 7, 1997

Computer Show & Sale!

★ Seminars on
Pi bulletin board (TCS)
and Internet (Explorer) services

★ **Get a Mac health checkup**
(Bring in your Mac and, in return for
a donation to the Pi, we'll check its health)

★ Visit our Web site in May for a discount
coupon on admission, <http://www.wap.org/>



Welcome to Washington Apple Pi!

As a new member of

WAP, one of the first things you will want to do is familiarize yourself with our Hotline.

What is the Hotline? It's one of the best, and easiest ways you'll have to get help and information quickly. And you'll start meeting some of the folks who, like you, are members of this wonderful club.

The Hotline is found in the middle section of the *WAP Journal* (this month only, pages 41 and 44). Newly updated by Jim Ritz, it is broken down into Macintosh and Apple pages. On the Apple side, you'll find specific sections for Apple II and /// computers as well as the IIGS. All have sections on specific programs like Word or Visicalc, computers, or more general areas like word processing and data bases.

The Macintosh Page also includes a section for more general computing areas, as well as the Help Lines for our Frederick and Annapolis Slice groups.

One of the key things to remember about the Hotline is that everyone listed there is a *volunteer*. Each individual volunteered to have their name listed under specific subjects so that if you are having trouble, you can call and get the help you need.

For your part, as a new member it's important to follow some simple guidelines. Don't call after 9:30pm (eastern time) or before 8am. Write your questions down and try to be as precise as you can about what you need to know. It's difficult to try to diagnose and solve problems over the phone. The way to make sure you get the help you need is to be as clear and concise as possible.

Also keep in mind that our volunteers will try to do the best job they can to help. But they also have lives and other priorities, so please don't spend too long on the phone with them.

And if you have an area of expertise with the Macintosh or any version of Apple computer, please volunteer. We love to have more Hotline Volunteers. Especially in areas *not* listed in our current editions. Call Beth Medlin at the office—301-984-0300 for more information. By the way, it doesn't matter where you are. You can be a

Hotline Volunteer no matter what part of the country you're from.

TUESDAY NIGHT

If you find that our Hotline Volunteer can't help, the next step is to bring your questions and sick computer or *peripheral* to our Tuesday Night Repair Session.

Once again, here's a direct benefit for you as a new member. Volunteers, led by our illustrious President Lorin Evans, are in the office most Tuesday evenings, often until 10 or 11pm, solving all kinds of problems ranging from the easy to the difficult. I've been to Tuesday night sessions where virtually every part of a Stylewriter printer had to be disassembled so that the problem (cleaning and greasing gears) could be fixed. And I've been to sessions where the only problem was a loose cable inside a *Powerbook*.

Some folks come in with their computer infected by a *virus*, a need to upgrade software, have someone go through their *desktop* and hard disk and organize it for them. Members buy used computers from the club, bring in their old machines and software to donate. Some just come in to watch. The education you get for a few hours of your time is something else again.

During one recent Tuesday Night, member Bill Harvey told me that he had come because he needed help "getting on the World Wide Web, getting my hard disk organized and learning how to do e-mail."

He says one of the best reasons to be a WAP member is because of the expert advice that's available and that people speak to novices using understandable language.

And again, if you have some area of expertise, here's another place for you to volunteer a little bit of your time. Even if you can only spend a couple of hours, your help will be appreciated.

20TH ANNIVERSARY

We are currently discussing ways to celebrate our 20th anniversary as a computer user group. That means plenty of opportunities for volunteers, so please let Beth know if you are interested. We'll keep a list and contact you as plans get a little more solid.

DID YOU KNOW?

That WAP is an *Internet Service Provider* (ISP) for its members? That means you can join up as an "Explorer" to surf the Internet through your club. We provide practically everything you need to get onto the *Internet*. Complete instructions are included and are easy to follow. You can learn more by taking one of our "Intro to the Internet" classes. And best of all, our prices are cheaper than anyone else's, including Erols. Call the office for more details.

FAVORITE NEW MEMBER WEB SITES

OK I'll admit it—www.wap.org is one of my favorite web sites. Lawrence Charters is the *Webmaster* and takes the blame for everything on it. I even blame him for the things that I have given him to post, but that's another story.

Seriously, however, if you sign up for the Explorer Internet Service, it will pay you to see what the WAP *World Wide Web* Page really has to offer. (You can certainly surf to the page if you use another ISP, but you won't have access to some of the neat goodies only available to Explorers).

My personal favorite is one of the newest features—a searchable database of everything in our TCS File Download areas and the ability to then download those particular files you want. It's much faster than trying to download similar files from other sources on the Internet. I've even *bookmarked* the search page to make it as easy as possible to use. This is only available to our Explorer subscribers—so if this includes you, Congratulations!

DEFINITIONS

Bookmark—A quick way to keep track of favorite sites on the WWW. It's a file in your browser that maintains a list of these sites so you can go to them quickly.

Browser—Software that lets you surf the Internet like Netscape Navigator or Microsoft Internet Explorer.

Desktop—Basically the main screen that appears when you first boot your Mac (or IIGS). It includes "icons" representing your hard disk and

perhaps software, the Trashcan (where you throw things away), printers, etc. Also includes the Menu Bar at the top with different selections like "File" and Edit" that you click on to get lots of nifty choices for actions to take.

Internet—A world-wide hookup of computers into a network that offers users like you and me access to tremendous amounts of information—some useful, some not.

Internet Service Provider—a company or organization (like WAP) that provides subscribers a "gateway" to the Internet. Basically this means you dial the ISP, which has the modems, computers and software needed to hook you into the Internet. WAP does it cheaper than anyone.

Peripheral—A piece of hardware that hooks up to your computer like a printer, modem, etc. Does not include dust bunnies.

Powerbook—A portable Macintosh. The new 3400 series is way cool but way expensive.

TCS—WAP's text-based Bulletin Board System. As a new member, you have access to this TeleCommunications System that includes 8 separate conferences of 32 boards each.

Virus—a nasty little software bug that can cause all sorts of problems with your computer. They can be downloaded from the internet, found on disks, in programs, even in Word files. There is software available to detect and destroy them.

Volunteer—What makes your new club work. We have lots of jobs to do! As a new member, please let us know what interests you.

Webmaster—The High Guru who oversees and directs a WWW site.

World Wide Web—The graphical part of the Internet that most folks use.

—David Ottalini

QuickTime SIG February Meeting

by Stuart Bonwit

THE MONTHLY QuickTime (QT) SIG meeting was held in the Pi tutorial room on Tuesday, Feb. 11, 1997.

Ellen Baniszewski gave a demo of 3D World, a product of Microspot, from her PowerBook, displayed on the classroom monitor. The software requires a Power Mac, QuickDraw 3D, and System 7.1 or later. Ellen picked up a bargain package at MacWorld for \$79 as an introduction into 3D. She demo-ed how the user can create 3D objects and change their size, orientation, color, and illumination. Ellen was experiencing some trouble with the program using QuickDraw 3D v1.5 that was in the PowerBook. QuickDraw 3D v1.0.6 on her machine at home seemed to be more compatible. QD3D v1.5 uses much more memory than v1.0.6 and seems to make the machine run slower than does the earlier version.

Stuart Bonwit showed an update of his *Sleeping Beauty* animation. Only the first 15 seconds of the dance sequence were shown without sound. The opening titles with sound were shown at a previous meeting. A lively discussion followed on the differences between animation "in-betweening" and morphing. In-betweening is the process of creating motion frames between key animations. Morphing is the process of creating additional frames which dissolve or fade from one still picture (or frame) to another similar picture. An example would be a dissolve from one person's face to another's.

Also shown were some video clips downloaded from the Internet.

The next meeting is scheduled for Tuesday, March 11, 1997. ■

QuickTime SIG March Meeting

by Stuart Bonwit

THE MONTHLY QuickTime (QT) SIG meeting was held in the Pi tutorial room on Tuesday, Mar. 11, 1997. Karen Ackoff showed two of her multimedia projects—a portfolio of her artwork and a presentation on a powwow, both created in Macromedia's Director. Karen burned both of these presentations onto a single CD-ROM. She said CD burners can be purchased for about \$600 now, making it a cost effective solution both for archiving of graphic work and for circulating samples of that work. Blank CDs cost about \$10 a piece.

Karen is job-hunting for a professorial position teaching art and/or design. Her portfolio is part of her application packet. It begins with textual information on her educational background and work experience, then continues with 20 examples of her artwork, comprised of natural science and medical illustration as well as illustrations for children's educational textbooks. While her portfolio was closer to a slide show, albeit with dissolves, the PowWow project was true interactive multimedia. This was the final version of the draft she presented at a previous QT SIG meeting. A typical sequence includes a still photograph, two video clips, text, and voice narration. As each video clip finished, it was freeze-framed and stayed in position as the next one opened on another part of the screen. At various points in the sequence, there were buttons available to pause or move ahead in the presentation. The PowWow piece is based on the Arlee PowWow, held in Arlee, Montana in July. Many Native Ameri-

can tribes participate in this event.

Karen also showed a commercial interactive multimedia piece called "From Alice to Ocean"—about Robin Davidson who walked across the Outback of Australia. Rick Smolan, a photographer known for his work in the *DAY IN THE LIFE* series of books, photographed the trek.

Karen gave a brief overview of the program Director, showing the numerous component parts of the program. These include the stage (where everything takes place), the score (which is like a script), the paint window (for manipulating and creating graphics), and the control panel (for moving through the presentation). The score includes channels for color palettes, tempo (adjustments to the speed of playback), transitions (such as fading in and fading out), sound, scripts (for scripting specific actions such as making a button make a particular sound when it is clicked on), and many animation channels (for placing elements such as graphics, video clips, and text). George Venable, who was in attendance, also provided some insight into the program.

Stuart Bonwit showed the latest, unfinished clip of his *Sleeping Beauty* animation. It was a "draft" version recorded at six frames per second (fps) rather than the final 15 fps. The ballerina's back bend had to be divided into four key frames because of the peculiar coordinate transformations the animator had to do. Her arm/hand and head movements in the back bend had not yet been animated. The male dancer had not been animated at all in this part, so the ballerina was balanced in an impossible pose while her hand was not being held!

The next meeting is scheduled for Tuesday, April 8, 1997. ■

Columbia Slice SIG

by Steve Ocone

THE MARCH 6TH Columbia Slice meeting drew quite a crowd. Before the main show, Jim gave a demo of a 200 MHz 3400C Powerbook. The 12.1" color screen was spectacular and the sound wasn't bad either. I had no problem seeing or hearing a multimedia demo from across the room.

The main presenters were Christopher Callendar and Jim Katzman from Bell Atlantic and they were selling ISDN (Integrated Services Digital Network; also known as I Smell Dollars Now). Jokes aside, they were convincing sales people and it looks like Bell Atlantic has a fair deal for those of us that would like to bump up their Internet access to 128 KB/sec.

ISDN is a phone service that uses the present twisted pair cable that already is connected to your house to send digital information. You can make voice calls on it or use it for your computer or fax. One neat aspect of an ISDN line is that it is actually two lines in one. You can use it as two 64KB lines (to receive a fax while you are surfing the web, for example), or use it as one 128KB line. In fact it has the ability to switch seamlessly between the two. We were told that it is easy to set up and easy to use. The biggest initial cost is for the ISDN terminal adaptor. This connects the phone line to your computer, phone and other equipment. The prices start at between \$200 and \$300 (if I remember correctly). There is also an initial fee for hooking up which is currently being waived as I write this.

This is probably a good time to give a recent Mac vs. Wintel experience I had at my office. I work parttime at a non-profit adult

daycare center in Olney, MD. We have two Macs, a Performa 6280 and a Classic, and 3 PCs. A volunteer brought in some forms he made for us at home using Word 6 for Windows. Trying to open it on our Windows machine was a lost cause. We have an earlier version of Word which could not read the file. Opening it as a text document gave a page full of mostly unrecognizable characters.

We walked over to the Performa 6280 and I popped in the disk. A "PC" icon appeared on the desktop and I double-clicked to open it up and double-clicked on one of the DOS files within. Immediately a window popped open asking me if I wanted to open it in Microsoft Word (we have version 5.1) or ClarisWorks. I chose Word. In a matter of seconds we were looking at the document with all of the formatting intact. Maybe Wintel people should keep a Mac around for emergencies like this.

By the way, I am looking for a donation of a working 68030 or later machine, preferably with at least 8 megs and hopefully with a monitor and sizable hard drive (100 megs or better). If you have just one of these components let me know. All donations are tax deductible. My phone is 410-418-4414. E-mail, SteveOcone@aol.com. ■

Senior Sig February Meeting

THE MAJOR attraction of the meeting was Lorin Evans' presentation and responses to a wide range of Macintosh questions.

Lorin's lucid discussion of Zterm, TCS mail, America Online, and TCS telecommunication was outstanding.

In addition, Lorin shed light on Apple's "Open Transport" which is

included with System 7.5.5 and 7.6. Open Transport which is a simpler methodology for establishing Internet connection, works only on Power Macs. Lorin explained that all models with four digit identification numbers such as those in the 7xxx or 6xxx are Power Macs as opposed to those with only three digit numbers such as 6xx.

He explained Apple Talk, Zterm, and share ware.

After Lorin had to leave for another engagement, the group went online to explore setting up a Claris database and establishing an amazingly easy Zterm connection with the Montgomery County Library system. The online access number of the library is 301-217 3906.

Members again expressed a desire to have subject focussed meetings. The next meeting on March 26 will feature Lorin Evans discussing Claris Works.

Members are urged to bring a floppy disk with them. We will format the disks and possibly port some programs to them. The disks do not have to be blank but contents will be destroyed when the disks are formatted. ■

—Chuck James
chazza@imssys.imssys.com

StockSIG for March

by Morris Pelham

WE LIVE IN interesting times. On Wednesday, March 12, after the close of trading for the day, the Dow Jones News Service announced that effective with the start of trading Monday, March 17, 1997 four of the 30 stocks in the Dow Jones Industrial Average would be dropped and replaced by new names.

Our meeting was scheduled for

7:30 PM on Thursday, March 13, so I had a little extra work to do. Also that Thursday, the Dow lost 160 points, to 6878, so we had lots to talk about.

I had planned to talk about the earnings of the companies in the Dow, and the P/E ratios, and how much room there might be for prices to go even higher. I did, but added to that the new and old names in the Dow. It won't make any difference in existing portfolios, but it will in the ones we put together in the future. Next month will be different, and next year, and so forth.

In March I did buy into my 1997 Dow Stock Portfolio another lot of AT&T at 35 3/4 because it has dropped about 10% in price from its original purchase price. I like to buy bargains.

Mark Pankin brought his copy of *The Wall Street Journal* graphic showing "How the 30 Stocks in the Dow Jones Industrial Average Have Changed Since Oct. 1, 1928" and showed it to us. The new companies are Hewlett-Packard, Johnson & Johnson, Traveler's Group, and Wal-Mart Stores.

Mark also brought us his familiar chart and worksheet showing how our Beating the Dow strategy is doing in 1997 compared to other averages and other strategies. So far, it's not. Our Beating the Dow strategy is the second worst performer, second to the NASDAQ, which is worst.

Bob Lee brought us his copy of a new book, *What Works on Wall Street*, and his review of it. Bob tells us that small cap stocks are more profitable, that the Price to Sales Ratio is valuable, and that a momentum strategy helps produce top returns.

Phil Stewart and Mark Pankin showed us some current thinking and results for the Fidelity Select strategy investing in mutual funds. Mark says this strategy produced a

return of 40% in 1997 and has run at about a 40% rate per year since beginning in November 1993.

I was most interested in Mark's list showing the weekly Fidelity Select best performing funds from January 1996 going forward to March 1997. Some losers and some winners, just what you would expect, but if you pick the right ones you can get 40% per year.

If you have any questions or comments on this column or others of mine, they are welcome on our TCS, on the StockSIG Online board.

StockSIG meets the 2nd Thursday of each month at 7:30 PM in the WAP office. ■



Women's SIG Meeting

by Sonja Fogel

ON MARCH 27, more than 20 members of the Women's SIG (and more than a few of their men) watched Lawrence Charters analyze what had "discombobulated" the Performa 7100 that Etana Finkler uses in her graphic art business.

In the absence of Chairperson Kathleen Charters, the meeting was smoothly moderated by Grace Gallager, who once again fixed us a delectable dinner. She announced that the SIG needs people to take minutes at all future bimonthly meetings, since our faithful former scribe, Nancy Seferian, has new duties. Please call Kathleen to volunteer (410-730-4658) and submit minutes to the *Apple Pi Journal* editor, Kathryn Murray (804-472-4449). If you give your e-mail address to the SIG, meeting announcements can be sent to you over the telecommunications system (TCS) rather than by

snail mail.

In his presentation, Lawrence said that computers were supposed to make our lives simpler, but when something goes wrong, we often feel overwhelmed by the apparent chaos. This confusion can be decreased by learning to troubleshoot systematically. He stressed the importance of categorizing Macintosh problems, classifying what could have caused a crash, and organizing computer files for more efficient use.

After a crash, it may be necessary to shut down the computer, but first try to get expert help. ("Crashes" include a frozen mouse, a bomb message, or a program quitting unexpectedly, among other things.) Before turning off the machine or calling a technical person for help, Lawrence said, see if you can go to the Finder's Apple Menu and select "About this Macintosh." Record the system number you are using and how much memory is available. Be able to tell your technical advisor any error messages and exactly what you did or what software you installed just before the crash. Always check with a trusted advisor, such as the Apple Pi Hotline service, before making important changes. If no Hotline help is available, post your troubleshooting questions to the TCS bulletin boards, 24 hours a day. The "Mac Fixit" Internet website can be helpful, he said, but double-check the advice you get.

After you get rid of the problem, restart the Mac properly to release its memory, and rebuild the hard disk desktop to update the Directory. The Mac "knows" whether it wasn't shut down properly, Lawrence said, so it will take time to check more things at the next bootup than if it was restarted or shut down properly.

If your Macintosh came supplied with a CD copy of its basic programs

Continued on page 76

Lou Dunham, WAP Member At Large

by Nancy Seferian

WHAT A combination! A music loving, bass, electric bass, alto sax and accordion playing, automobile ardent, computer zealous, technically talented WAP member. Those are just a few adjectives for WAP Director, TCS Sysop and volunteer Lou Dunham.

I met Lou at Dunhams' Automotive, his family-run business, where he promised to show me a use for one of his computers that would surprise me. Talking about favorite Internet sites with Lou led me to discover that he plays bass, and used to be road manager for Magpie, a Takoma Park based acoustic group. He played stand-up bass with them whenever the regular bassist played cello. He plays electric bass (rock &

roll), alto sax and is learning the accordion.

I also discovered that Lou graduated from Gaithersburg High in 1969, was enlisted in the Air Force as an aircraft mechanic from 1969 - 1972, serving as a Sergeant in the Vietnam War. When he completed his Air Force service he returned to help his brothers, Mike, Terry and Buddy, run Dunhams' Automotive which was started by Lou's father in 1949. The interesting old edifice where the business is housed is considered an historic building now, and is right in the heart of Potomac, Maryland.

Lou offered to show me how he uses the Macs located at the business. We started in the office where

“Why would anyone who had a Mac put Windows on it? Especially Lou.”

Lou's personal computer at work is an SE 30 which he purchased through an Internet newsgroup called comp.sys.mac.forsale. It has a video card, 20 MB RAM, 160 MB hard drive, uses System 7.1.1 and Open Transport, a CD 150 and a US Robotics Sportster modem for his Internet and TCS use. This computer serves for e-mail and word processing, and of course one nice feature of this early Mac model is that it's portable.

Actually, almost everyone in his family is a Mac enthusiast. The exception is his mom who purchased a PC 6 years ago for use in keeping the books at the business. One day it crashed and wasn't backed up, and she's been doing the books by hand since then. She may finally have to enter the Mac world, though, due to family pressure. Lou's brother Terry has a Performa 550; his brother Buddy has an LC 475; his sister, Molly Dunham, Sports Editor of the Baltimore Sun, has a Performa 6205; and 11 year old daughter, Margaret, has an LCIII.

Lou took me into the repair part of the shop where he had a Quadra 610 set up on the side of the work area. As he fired it up he explained that it had a DOS compatibility card with a 486 SX 25 Intel processor and runs [ugh] Windows 3.1. Well, I ad-



Here is the historic Dunhams' Automotive building, circa 1936.

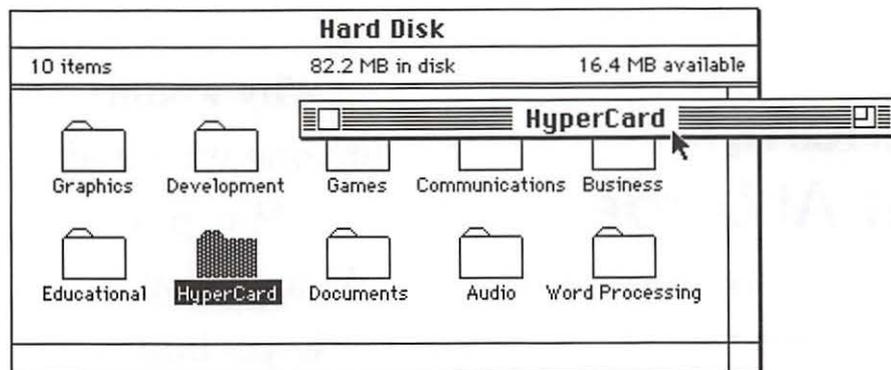


Figure 1. WindowShade allows you to double click anywhere on the title bar of a window and the lower part of the window will “roll up” underneath the title bar.

mit I was surprised. Why would anyone who had a Mac put Windows on it? Especially Lou. Then he inserted a CD into the CD drive and what I saw was very interesting. The manuals for all the cars his team works on are on CDs, in beautiful color, with 3-D diagrams, drawings, instructions, photos, and information instantly available with the click of a mouse. All the automotive experts at Dunhams’ Automotive make use of the manuals for reference in the course of their work.

Lou’s first experience with computing was an Apple IIGS, with which his stepdaughters, Ana and Alyss Henderson, were to do their schoolwork using WordPerfect. He soon learned that the machine would need a hard drive to run the application reliably. That’s when he joined WAP to get help in locating the drive and installing it. Next he bought himself a PB 100 with 2 MB RAM and a 20 MB hard drive. With WAP’s help, he upgraded it by installing an internal modem, 6 MB of additional RAM and a larger internal hard drive. Alyss, who works as an actress in New York City, is now the owner/user of this dependable little PowerBook. Ana, a Dartmouth graduate and student at Harvard Law, has a PB 145 which Lou upgraded to 8 MB RAM and 120 MB of hard disk space.

He decided to give back some of the help he received from other WAP volunteers by volunteering some of his own time to WAP. Bill Wydro first enlisted him to serve on the Election Committee, and Lou became Chairperson of the committee because he “showed up,” he says grinning. Looking for other ways to help he volunteered time, brawn and a vehicle when the office moved from Bethesda to Rockville. He also earned gratitude and became fa-

mous one year when he brought fast food to the Garage Sale workers who had never given a thought to their next meal until they were starving and had no prospect of leaving their posts to get food.

Lou has also donated his computer expertise in another area. He set up an entire computer lab with Macs at Our Lady of Lourdes School where his daughter Margaret attends, in one night! (Lou adds, modestly, that he had a Windows and a Unix user help him uncrate the machines.) In addition, that same night he created a slide show of screen shots using Ambrosia’s *Snapz*, a screen capture program with a slide show feature for the school’s Back to School Night the following evening.

Lou is one of the regular helpers at the Tuesday Night Clinic, which was founded by WAP President, Lorin Evans. He became involved last fall and now volunteers his time each Tuesday night along with Lorin, Dave Weikert and David Harris, helping members sort out



Lou teaching a class on the TCS.

their software problems, installing hardware, answering questions, and setting up software to make Internet connections and send e-mail. Lou gets a real pleasure out of helping members and also knowing that the members' donations go a long way to benefit the whole club.

Most Used Applications:

ZTerm, Word 5.1a, Netscape 3.0.1, Newswatcher, Adobe Home Publisher (a miniature PageMaker which also comes with ATM)

Favorite Extensions and DAs:

His favorite DAs, all of which are on the TCS are WindowShade (See Figure 1.) Super Clock, Magic Bullets, RamBunctious, JPeg View, BBEdit Lite, Nifty Telnet and MacWeather.

Favorite Web Sites:

- Gary Hayman's Zyde-Magic Cajun/Zydeco Web Page
<http://www.nmaa.org/member/ghayman/>
- Accumulated Accordion Annotations
<http://www.cs.cmu.edu/afs/cs/user/phoebe/mosaic/accordion.html>
- Welcome to House of Musical Traditions
<http://www.hmtrad.com/hmtrad/index.html>
- The AFTRLife - a Tom Robbins Playground
http://www.rain.org/~da5e/tom_robbins.html
- Ben & Jerry's Homepage
<http://www.benjerry.com/>
- CarTalk.com (Click & Clack - the Tappet Brothers)
<http://cartalk.com/>
- THE INGRID BERGMAN PAGE
http://www.heartlab.rri.uwo.ca/people/thornto/gal_ib.html
- MacInTouch
<http://www.macintouch.com/> ■

Can Anyone Save Packard Bell?

by Scott Kelby

[From the Mar/Apr issue of Mac Today Magazine, <http://www.mactoday.com>). Reprinted with the author's permission.]

THE OTHER DAY, while reading another article designed to scare the pants off potential Apple customers and/or shareholders, I started wondering what life would be like if I somehow got a writing gig at a PC magazine. Besides having to wear the dorky-looking outfit, wire-rimmed glasses, and pocket protector, I'm certain that during my first day on the job I'd be handed a secret dossier that would include the closely guarded manual of rules for writing any ar-

ticle that mentions Apple Computer. It would include certain guidelines to follow, like "Any good news on Apple must be followed by the word 'but' and then a direct reference to either: (a) their small market share, (b) any quarterly loss in the past five years, or (c) Microsoft's dominance.

This manual provides PC-worshipping journalists with guidelines for "selective reporting" where only damaging facts and figures about Apple are allowed. The latest amendment to their manual is how they should refer to the Macintosh operating system. It must always be referred to as "outdated." And even though Windows 95 tries to emulate the Macintosh operating system, it

must never, under any circumstances, be referred to as outdated. That would be blasphemy.

The more I thought about it, the more I realized that the Macintosh press needs a similar manual for writing about PC manufacturers. With that in mind, I decided to write a few news blurbs on some of the PC manufacturers so they'd get a little feel of that "selective reporting" from a Macintosh point of view.

Can Anyone Save Packard Bell?

Heavy competition and unexpectedly low holiday sales are taking their toll on some PC manufacturers and Packard Bell, once a shining star among PC clone makers, has fallen on hard times. The beleaguered company is struggling amidst rumors of bankruptcy, suffering a dwindling market share, and staggering from being rated at the bottom of the heap for consumer loyalty (when polled earlier this year, less than 35% of Packard Bell owners would buy another Packard Bell). The public may be asking, "Can anyone save Packard Bell?" A

recent article detailing Packard Bell's woes in the December 30 issue of Business Week magazine noted that "Many experienced consumers shied away from Packard Bell, citing its reputation for shoddy quality and indifferent service and support."

That same article noted that Packard Bell "has watched its sales and market share slowly slide since last January." It pointed out that in the first ten months of '96 alone, Packard Bell had already lost 8% of their market share. In a business where market share is everything, a dramatic drop like this could spell doom. Couple this with lagging sales (they fell \$1 billion short of their sales estimate) and a widely held perception of shoddy quality and poor customer support, we can't imagine a scenario where they'll be able to survive in the long haul. Packard Bell, unlike rival Apple Computer, which won the J.D. Power & Associates award for overall customer satisfaction and has over 27 million fiercely loyal customers, has quite an uphill battle to survive. And if they don't survive will anybody really care — or will they just buy a cheap PC clone from somebody else?

Can Anybody Save Gateway 2000?

Recent television advertisements by upstart PC clone maker Gateway 2000 have raised serious questions about the company's future. The advertisements point to sales figures of only one million units, whereas rival computer maker Apple Computer had sales figures of nearly four times that amount in the same time span. This would put Gateway 2000's market share below 1.75% which, as any industry analyst would tell you, means instant death in the highly competitive PC clone market. With sales of only 1 million, it seems clear that Gateway 2000 has four times

the problems of Apple Computer. Which brings us to the question, "Can anybody save Gateway 2000?" Of course, if Gateway doesn't survive there's always IBM.

Can Anything Save IBM?

After surviving the largest single-quarter loss in the history of business, IBM, once the leader in personal computers, has seen its market share fall well behind industry rivals like Compaq and Apple Computer. IBM, once the dominant

"Besides having to wear the dorky-looking outfit, wire-rimmed glasses, and pocket protector, I'm certain that during my first day on the job I'd be handed a secret dossier that would include the closely guarded manual of rules for writing any article that mentions Apple Computer. It would include certain guidelines to follow, like "Any good news on Apple must be followed by the word 'but' and then a direct reference to either:
 (a) their small market share, (b) any quarterly loss in the past five years, or
 (c) Microsoft's dominance."

PC maker, has seen its position erode as PC clone makers and Apple Computer have seized the lion's share of the desktop PC market. And their fiasco with OS/2 is better forgotten. One bright spot in IBM's personal computing efforts is the success of the PowerPC chip, developed in a joint effort by IBM, Motorola, and Apple Computer, which is currently the fastest personal computer chip on the market, speeding past competitor Intel's fastest offerings.

Can Anything Stop Apple?

After stunning the computer industry by bouncing back to profitability from a \$750-million quarterly loss earlier in the year, Apple Computer just posted a comparatively modest \$120-million loss for its most recent quarter. The loss, which occurred during what has been called one of the weakest fourth quarters for computer retailers in years, is a far cry from Apple's problems of last year when the board was forced to oust then-CEO Michael Spindler. In fact, a significant part of Apple's recent loss was caused by the fact that high consumer demand for Apple's new 1400 series PowerBook computer created a massive backlog of orders. Although analysts have predicted Apple's demise every year since 1984, they're consistently wrong.

Although Apple does face some challenges, clearly there are many companies that would envy Apple's position as the nation's fourth largest personal computer maker, with over \$1.8 billion cash in the bank, sales of nearly four million units a year, a \$200 million backlog of orders for new units, and the number one ranking in consumer loyalty in the industry. I guess the 27,000,000 Apple enthusiasts are just glad they didn't buy a Packard Bell. ■



Adobe Acrobat as a Research Tool

Creating Searchable Databases from World Wide Web Pages

© 1997 by Dennis R. Dimick
For the Washington Apple Pi

A FEW YEARS AGO Adobe Systems created a new type of publishing tool called Acrobat. The name is appropriate, for Acrobat offers many tricks. But unlike other Adobe programs like Photoshop, Illustrator and PageMaker, Acrobat has been a bit slow to catch on—perhaps because its purpose is not well understood.

You don't use Acrobat for creating content in the same way you might use an imaging, drawing, or layout program. If you use Photoshop and PageMaker to create an illustrated brochure, you use Acrobat to convert the PageMaker file into a "Portable Document Format (PDF)" file.

Based on Adobe's Postscript page-description language, these PDF cross-platform format files can be opened and viewed directly, without translation, on Macintosh, Windows, and several types of UNIX computers using Adobe's free Acrobat Reader program.

Adobe has positioned Acrobat as a tool for creating and distributing high-quality formatted electronic documents that can be shared among all major desktop computer platforms.

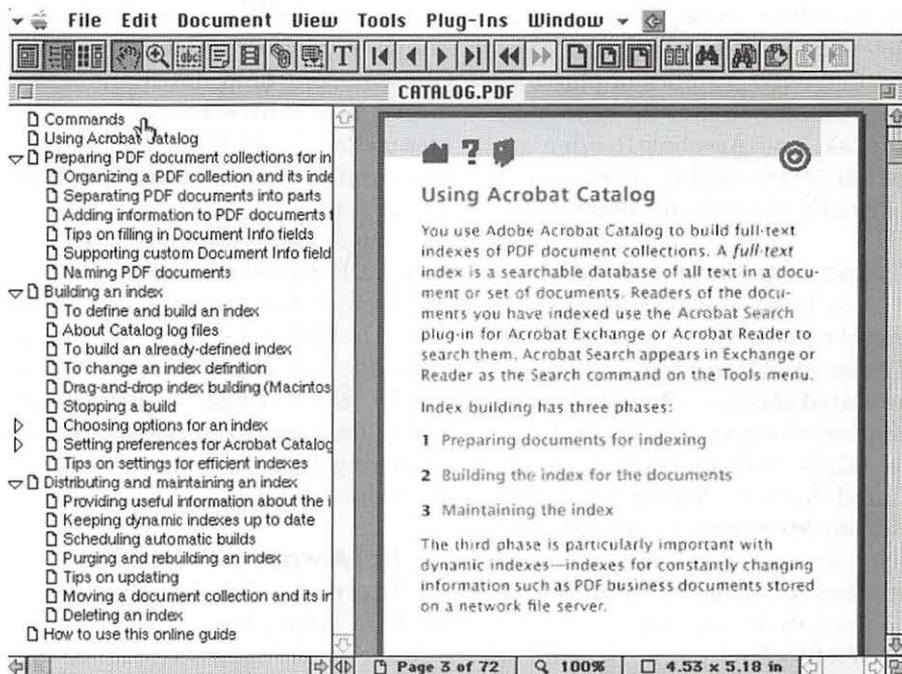
This is true, but I've also found Acrobat a useful tool for creating searchable databases of information gleaned from the World Wide Web.

Some Acrobat Background

Adobe finally released Acrobat 3.0 in late 1996, after months of pre-release hype, long after the Windows version was released. The basic package now includes components previously reserved for an earlier and more expensive "Acrobat Pro" 2.1 offering.

Acrobat now includes these components: PDF Writer—a Chooser-level selectable "Printer" Driver for creating PDF from most desktop programs; Catalog—a full-text indexer of PDF files; Exchange—a PDF file editing and hyper-text linking program; Reader—a freely distributable program for reading and searching PDF files; and Distiller—a tool to create highly compact PDF files from Postscript sources. The package also include Adobe Type Manager 4.0, extensive online documentation, and 14 Adobe Postscript fonts.

Why does Acrobat appeal? You can use any program that supports printing (e.g., Simple Text, QuarkXPress, and Netscape Navigator) to create PDF documents for others. They don't need the program you used to create the document, nor do they need file translation tools like Claris XTND or



Online Help: Here's what the online help document for Acrobat Catalog looks like. You can click on any topic at left and jump to the needed page. The numbered items on the "Using Acrobat Catalog" help screen at right are hypertext-linked and will take you to other help topics. Help files like these abound for all Acrobat components.



DataViz MacLink.

The free Acrobat Reader and Acrobat Exchange allow you to open, read, copy, paste, search and print any Acrobat document, and they allow you to copy text and graphics to place them into, for example, Microsoft Word documents. If you choose, Acrobat offers via the Exchange editing program security features to prevent copying from, changing, or printing PDF documents you create.

Catalog and PDF Writer's Tricks

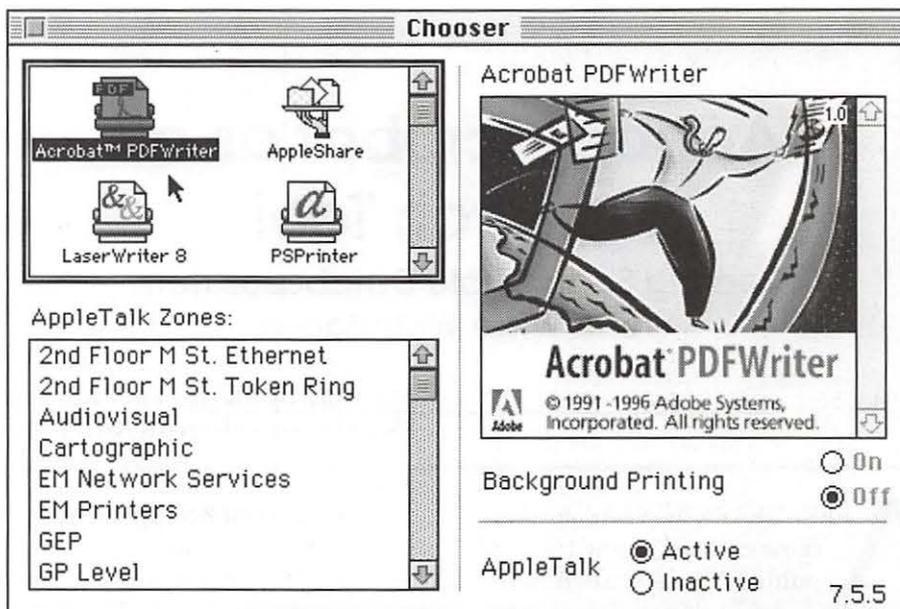
I'll focus on PDF Writer and Acrobat Catalog. These Acrobat components have allowed me to create indexed, searchable databases of topical information from the World Wide Web. In reality, you can do this with any set of documents you create on the Mac, not just pages from the web.

It's just that in the case of the World Wide Web, PDF Writer allows you to save web pages visually intact with searchable, catalogable text and with graphics in place. Acrobat Catalog creates the searchable indexes, and Acrobat Reader and Exchange are used to search the indexes and view the documents.

Amassing Some Information

I've been working on several projects lately that require gathering recent information from many unrelated sources, often US government or international organization web sites such as those from the United Nations. Topics have dealt with world food supply, global population dynamics and migration, boreal forests, western grazing, and the wilderness system.

With web browsers such as Netscape Navigator (mostly) and (rarely) Microsoft's Internet Explorer (or the MSIE browser module in AOL's 3.0 program,) I've been able to print any web page to an Acrobat file using PDF Writer.



PDF Writer Chosen: This is what your Chooser window will look like once you have chosen PDF Writer as your default "printer." You can also use a key-combination to select PDF Writer for one-time use and retain your normal printer for use afterwards.

Adobe also supplies a Control Panel "PDF Writer Shortcut" that allows you to print to PDF even if you have another printer selected in the Chooser. You hold down the command key while selecting File Menu>Print, and PDF Writer overrides your selected printer for this one action.

Depending on the host application, PDF Writer also allows you to add header and footer information to each PDF file created. From Netscape you can specify Location (URL), Date, Page Number, and Title. This can be invaluable for searching PDF documents by creation date or URL.

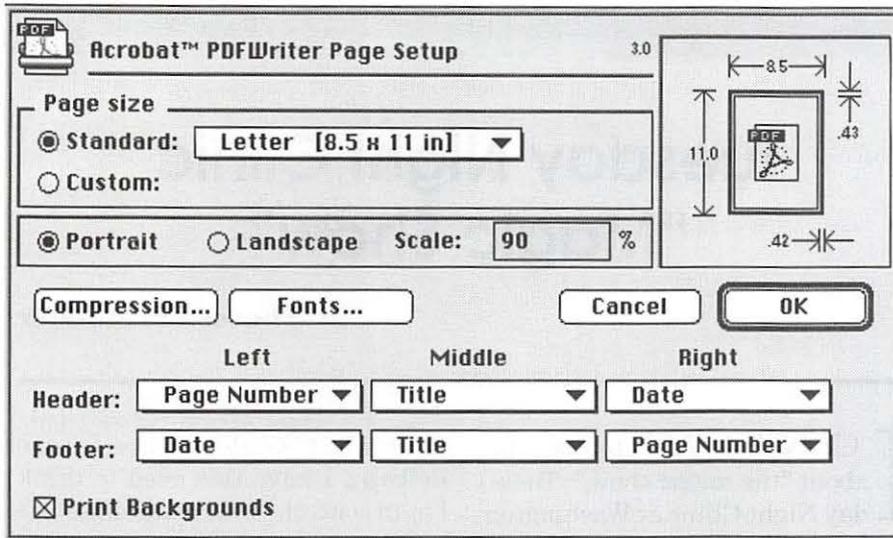
Not Always a Perfect Print

There are caveats. When you use PDF Writer to print to PDF any web page containing active links, the links will not be active in the resulting PDF file, and the underlying URL is not accessible. Acrobat does allow you to later embed URLs in any Acrobat file, so it is possible to make links live, but this is time-con-

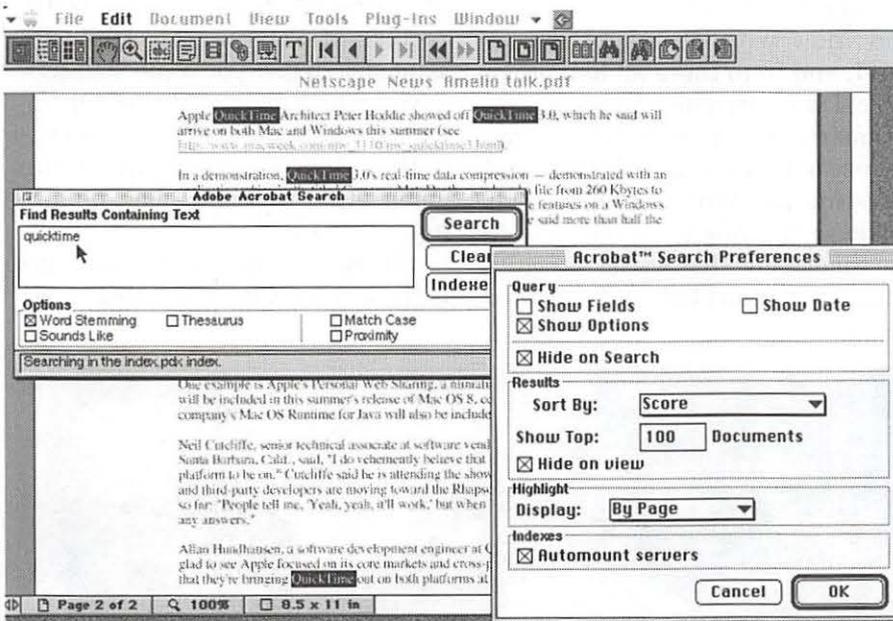
suming and beyond the scope of my research intent. On the other hand, if any PDF file contains Postscript art with text, such as that from Illustrator, this text is searchable and catalogable under Acrobat.

Any page you try to print to PDF that has a black background and white text will not look good. PDF Writer allows you to select an option to "Include Background," but I've never successfully been able to capture colored backgrounds from web pages. It's best in this case to save a page's text as a text file and then print that to an indexable PDF file from PDF Writer.

Be sure the width of your web browser window isn't wider than a normal letter-sized (8 1/2 by 11 inch) sheet of paper. PDF Writer allows you to print PDF pages at various percentages of original size, and I've typically set this option to 90 percent. This insures all text at the right of the source web page is in the PDF "page," and does not run off the right side of the "printed" Acrobat file. Sometimes



PDF Writer Setup: When printing to PDF with PDF Writer and Netscape Navigator, this Page Setup box presents a combination of options. Besides size, orientation and headers and footers, you can also choose to configure amount of graphics compression.



Search Result: These windows show the results of a search in Acrobat Exchange. The article was from MacWeek, the topic searched was QuickTime from a speech by Apple CEO Gil Amelio at Internet World in March 1997. The two overlaying boxes on the PDF file show options available for configuring the Search components of Acrobat Reader and Exchange.

this isn't possible, as lots of web designers create "wide" pages. You can always reduce page percentage size in the page setup dialog box, or you can print pages in landscape mode.

Assembling and Searching PDF

I'll set up folders for different subjects and print to PDF all related topic files and web pages into each

folder. Once my data gathering is complete, or is at least at a point where I want to start analyzing information at hand, I'll use a component of Acrobat 3.0 called Catalog.

Catalog creates a full-text index of all Acrobat files in a folder. All you have to do is drag a folder of PDF files on top of the Catalog application icon (or an alias of it), and Catalog will create an index that you can search much in the same way you would use search terms in Internet Search engines like Yahoo or AltaVista.

Once the catalog is created, you can use the search function within Reader and Exchange to look for any term or string of terms in the documents you have captured to PDF. It's possible to search several separate PDF indexes at the same time.

You can customize the search based on things like wild-card characters, word-stemming that looks for words with similar roots, case-matching, Boolean searches using AND and OR, and thesaurus searches that look for words with similar meaning.

Just Skimming the Highlights

Suffice to say this only skims highlights of some Acrobat tricks offered by combining PDF Writer and Acrobat Catalog to gather and index information. The other Acrobat components, Distiller and Exchange, offer vast options for creating, editing, and distribution of electronic documents. They really are worth articles of their own. Acrobat Reader and Acrobat Exchange offer similar searching options, but Exchange is powerful as a document editing, linking, and merging program.

Another component, Acrobat Capture, is a promised but not yet shipping part of the Acrobat package that will allow you to scan existing paper documents into searchable, catalogable archives of PDF.



(Alas, Capture is shipping for Windows, but not yet for the Mac.)

Adobe Acrobat comes on a CD-ROM, and most documentation is electronic. On one hand this is good, as Acrobat's documentation comes as searchable PDF files. But if you are a paper manual fan, all you will get is a small booklet to help with installation and setup. ■

Adobe Acrobat 3.0

**Adobe Systems, Inc.
345 Park Avenue
San Jose, CA 95110-2704**

Requires a Macintosh with 68020 processor or better. Recommended setup is a Power Macintosh with 16 MB of RAM available to Acrobat components, System 7.1.2 or later, a CD-ROM drive and 40 MB of hard drive space. Floppy disks available for a price on request.

Street price is about \$190, upgrade from Acrobat Exchange 2.1 is about \$80.

**Adobe Systems Web Site:
<http://www.adobe.com>**

Dennis Dimick has written for the Washington Apple Pi on a variety of subjects over the past five years. He is a fan of Apple's QuickTime technology, and also works as a magazine editor. Acrobat has proved quite useful for his magazine work. Besides the TCS, Dennis can be reached via e-mail at ddimick@aol.com.

Tuesday Night Clinic "Magic Show"

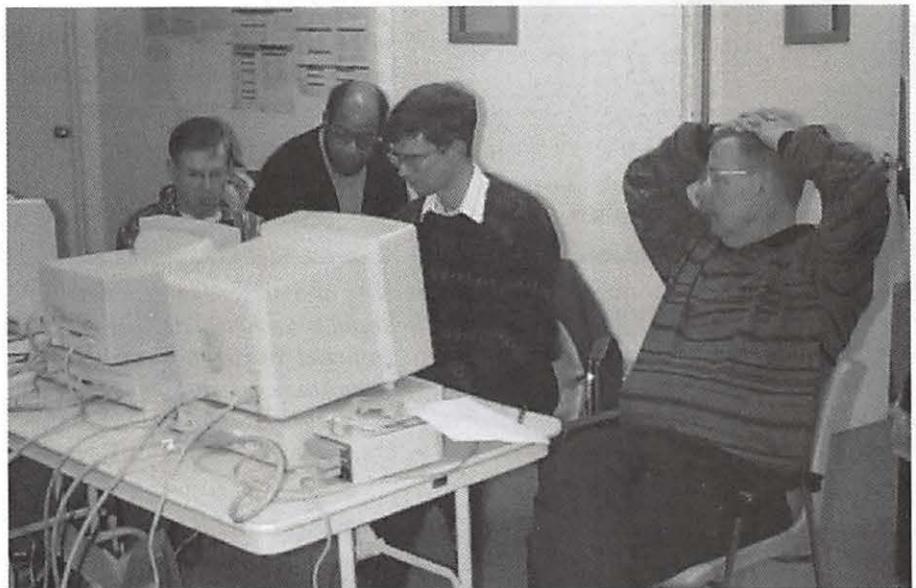
by Theresa Freilicher

I CAN'T WAIT to tell you about "the magic show," Tuesday Night Clinic at Washington Apple Pi. It's still a mystery to me as to how I even got there but there I was...

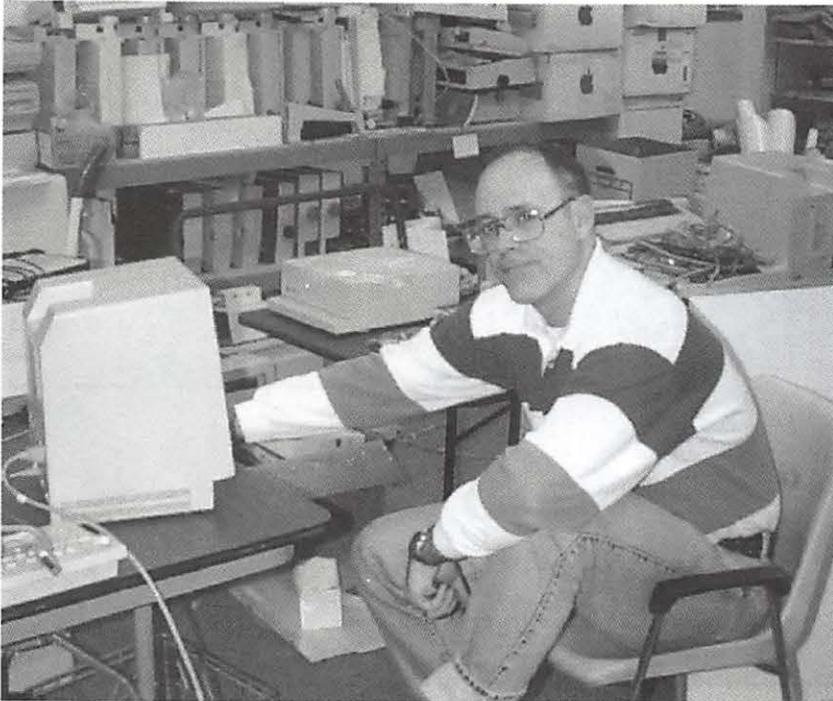
It began with getting a computer, a Power Mac 7200/75, then with a mere 8 megabytes of memory and now with 40 megabytes of RAM, and from there all hell broke loose. I was intrigued, beguiled and mesmerized... I liked it! It gave me a sense of flying... now, if I only had a destination. What if I knew what all these controls were and how to use them. Now that would be really something! I can't help it. I was born

near what would be the future Beltway. I have this need to think I'm in control. "D.C. syndrome." It took me a couple of months to commit but once I joined, I threw myself full-fledged into learning and first on my agenda was Introduction to Mac 1, 2 & 3 taught by Jim Ritz, also a member of the Board of Directors at Washington Apple Pi. That should give you some idea how devoted and dedicated these members are in helping other to find the path to learning and having fun along the way. Remember, he also has a day job.

If we were in the Marines, this is the guy we'd want as our D.I. He



Bill Beavers configures Explorer service on a member's Mac.



A member patiently waits to have his Compact Mac repaired.



David Harris coaches a member in Compact Mac maintenance.

some idea of what we were doing.

The next show occurred when I came to the Tuesday Night Clinic, to have Internet software and all the accouterments installed, and ended up staying from 6 PM-1 AM. Not only did I have the honor of watching the deft and gentle magic of Lou Dunham, also, a director on the board of "Pi," (and he helps run the family business, a garage during the day. Dunhams' of Potomac, only in business since 1949). He stuck to it and followed through with me from 8 PM till 12:30 AM making sure everything was installed properly and working perfectly. I was witness to all the magic that occurs when energy is combined and directed in a positive mode. It's encouraging the first time you try something that it be thoroughly enjoyable. To say nothing of "mind blowing."

Here, in this room full of strangers each with their own agenda, began the Magic Show.

I swear, I saw the surgeon-like hands of David Harris, morphing before my eyes as he removed minuscule parts of a Mac SE and extracted sucked-up disks. Dave

repeated and he repeated and he repeated and then he took a deep breath and repeated some more till he convinced us we were not going to die or do any harm to or on these computers. He helped us to laugh at ourselves and to relax and have fun. That's a good path to take for learning. Jim is a born teacher with the patience of Job and a sense of humor to match. By the end of the course, as if by magic, we had

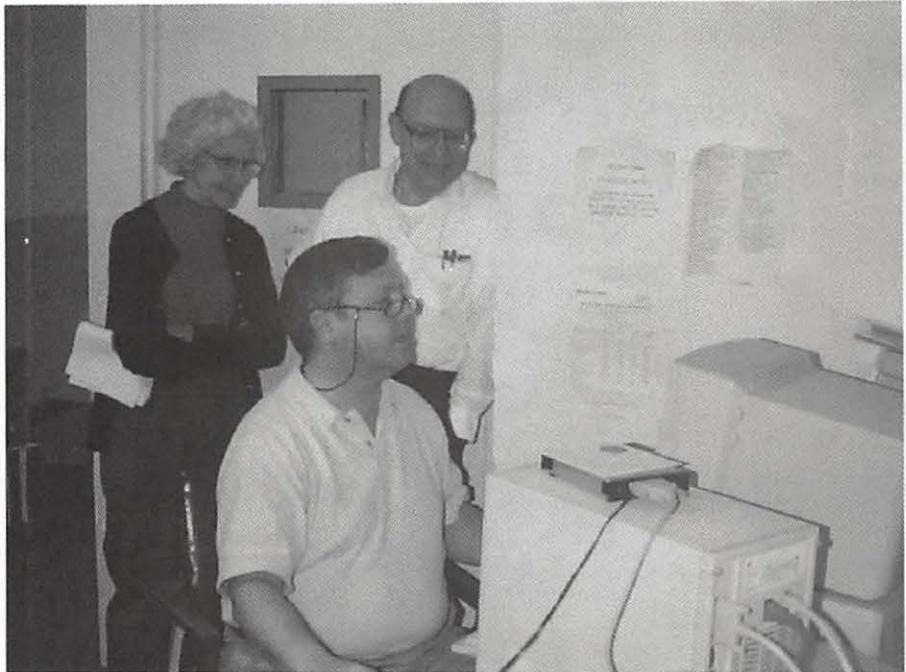
"By evening's end, the smoke of confusion had been lifted, all the problems made to disappear and we had become a roomful of friends, rooting for each other, bubbling over with conversation of shared experiences, with a sense of awe and wonder and warm camaraderie."



Weikert, nonchalantly tosses out pearls of wisdom as he works his Svengali like magic on another problem. By the way, both of these gentlemen are also on the Board of Directors, as well as having full time jobs. So it's not like they need to look for non-paying work to fill their few spare hours. If I were person who could see auras, I'm sure I would have seen a sharp blue light, fringed in a pure white emitting from both, slowly undulating and spreading towards each other, co-joining and extending to encompass all. Paul Schlosser, former Sysop for the TCS, meaning to leave, but wait, just one more rabbit trick up his sleeve of solutions to help someone partition their hard drive.

Lorin Evans, president of Washington Apple Pi, A.K.A. the master "wizard," with pure white lightning bolts edged in a crisp blue, crowning his head, the aura leaving traces as he swirls and whirls from one elusive problem to another, pulling out the solutions simultaneously...or so it appears! The president of "Pi," Lorin answers all questions, and if he doesn't know the answer he'll find out for you and himself, also answers the phones and gives some of the best advice

"He repeated and he repeated and he repeated and then he took a deep breath and repeated some more till he convinced us we were not going to die or do any harm to or on these computers."



Tom Witte troubleshoots a member's telecommunications software.



Bill Beavers demonstrates a newly configured Explorer connection.

East of the Pecos.

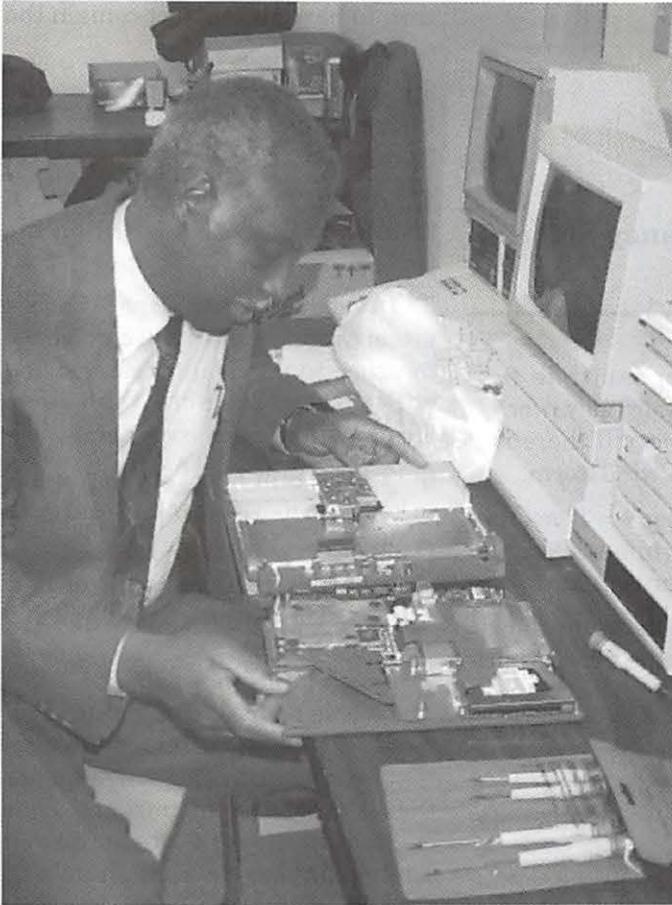
By evening's end, the smoke of confusion had been lifted, all the problems made to disappear and we had become a roomful of friends, rooting for each other, bubbling over with conversation of shared experiences, with a sense of awe and wonder and warm camaraderie. Lou Dunham makes great coffee and quite a few knowledgeable people

simply stand around and give out valuable information. I can't believe it isn't SRO.

A few words of caution: this is no illusion!

These are real people, making real problems disappear on WAP members' computers, for no real money, that would cost you a bundle anywhere else. That's magic!

Admission price: free!



In addition to knowing "what's on his PowerBook," a member discovers what's inside

Please know, "All Donations* Are Appreciated" and do not go to any individual, but to keeping the clinic open, in the evenings for your convenience, with heat, adequate lighting, clean restrooms, chairs and tables, so you may participate and learn as your computer is attended to, along with the wit and wisdom of all. Sometimes, Beth Medlin, Bellissima Office Manager Suprema, makes chocolate chip cookies (that's the most important item to remember).

So put on your top hat, bring your soon to disappear problems and come join the Tuesday Night Clinic "Magic Show."

*Donations come in myriad forms...from actual cash, check and

credit cards, to the giving of old or no longer used computers and parts, printers, dust covers, mice, keyboards, etc., and let us not forget the offering of becoming a volunteer, either with expertise or the basic offering of two hands willing to help in any manner necessary.

For twenty years Washington Apple Pi has been assisting its members through the efforts of members who volunteer. But the responsibility and dedication rests solely upon ourselves. Every journey begins with a single step. I took it and so too may you. ■

**Remember to vote
this month.**

Your ballot is in the center
of the publication.

Your ballot is due by the
23rd of May.

*Thank you for your
participation.*

WANTED

 **Used** 
Software

Trade your used
software at
**Cyber
Exchange**

Apple & Mac !

(IBM too)

**Stop in and browse our growing
selection of used software!**

**12274C Rockville Pike
Rockville, (301) 984-1446**

In Federal Plaza on Rt. 355
1/2 mile North of Montrose Rd.
Adjacent to Bennigan's



Best of the TCS

by Nancy Seferian

THIS COLUMN WILL highlight some of the best questions and answers found on the TCS.

Q. *My memory (wetware...) tells me that once upon a time there was a fairly extensive discussion of ways to eliminate static whilst installing memory (hardware: SIMMs) somewhere on the TCS. This board seems a likely place. Anyone remember that? Can you point me in the right direction? TIA [Thanks in advance], naturally!*

A. Whilst? Do computer types know what "whilst" is? Isn't that some archaic British card game?

1) Wash your hands. This does two things: it grounds you (because your plumbing is grounded) and it removes oil from your fingers.

1a) If living at home, clean your nails. Your mother will approve.

2) Take apart your computer to expose the SIMM slots. If at all possible, leave the computer plugged in to a 3-prong outlet, but turned off. If you don't have a 3-prong outlet, by all means do *not* plug it in.

3) Wash your hands again, if required. (Nervous sweat is just as damaging as cool, calm sweat.)

4) Touch the power supply to ground yourself.

5) Install SIMMs.

6) Reassemble everything.

7) Try it out. In particular, launch

a BIG program, or multiple programs, and see if it, or they, work. Do *not* install memory if there is a thunderstorm, or a windstorm.

Do *not* install memory if you routinely zap things while walking on the carpet near your computer.

If you have some liquid fabric softener, you can create a cheap anti-static spray by mixing 1 part per 12 parts water in a spray bottle, shaking, and spraying (lightly) your carpet. If all this seems too much, don't do it. Your computer (presumably) works without the extra memory, but if you take it apart and then decide you aren't up to putting it back together, you'll be unhappy.

Q. *How do I check my email address?*

A. At the Main Menu prompt (what you see when you first log on), type U to go into User Preferences. At the User Preference prompt, type Y (which stands for Your Current Status). Your email address will be displayed along with some other information.

Q. *How do I make a message Private after I've already made it Public?*

A. You can make it Private yourself even after you have made it Public and Saved it. Here is the procedure:

1. At the prompt for the board where your message is press A for Alter message; then press Return.

2. At the Subject prompt press Re-

turn to have the subject remain the same.

3. At the From prompt press Return because the message is still from you.

4. At the To prompt press Return because the message is still to the person to whom you wrote.

5. At the Public Msg? (Y/N): prompt press N. This will change the message to a Private message. You will then get a note that says: Header saved with corrections.

6. At the Edit Msg? (Y/N): press N to keep the message intact and quit.

Q. *What is a static IP address?*

An internet is a "network of networks." The Internet is a specific "network of networks," that happens to be very large and spans the globe. The whole point of IP, Internet Protocol, is to give each computer on that internet an identifying number that is unique to the internet. That is, first the networks are numbered (no two having the same number), then the computers (or other nodes) on each network are numbered (no two having the same number). The net (pardon the pun) result is that you end up with one long, combined number (always 32 bits in total length) to identify a computer that's unique on the internet.

This system is intuitive for computers that are more-or-less permanently wired to their respective networks. They are assigned a node number, which doesn't change. However, what do you do in the situation where computers are connected and disconnected from their network frequently?

Take TCS Explorer, for instance. WAP has a network at its office. You can connect to it, for short periods of time, by dialing into Explorer service. How might we number the hundreds of computers that take turns dialing into 20 modems?



One method would be to assign a number, a fixed, "static" number, to each TCS Explorer subscriber. When you give your name and password, our system would then presume (and in effect require) that your computer is set to be whatever fixed number we told you to use when you signed up. That is, each subscriber would have an individual name, password, and IP address, all of which would have to be manually entered into the appropriate dialog box.

Another method, the one we actually use, is to number the modems, not the subscribers computers. Your MacTCP or Open Transport TCP/IP software is configured to automatically use the modem's number, not one told to you in advance.

The "static" method has advantages because you have the same number whenever you're connected. If you get disconnected and dial up into another modem, you could literally pick up where you left off if you were in the middle of something. Your computer could be given a name, such as mycomputer.wap.org, and whenever you dialed in, no matter to which modem port, every other computer on the Internet could find you unambiguously. If you were hosting Web pages from your home computer, this could be a big advantage.

However, the "dynamic" method has other advantages. IP numbers are a scarce resource. It would be very wasteful to reserve hundreds of them for computers that are hardly on the Internet at all. Also, why should you have to remember yet another (nearly) meaningless number? It would become a book-keeping headache for WAP to have to assign and maintain records for assigned IP numbers for all Explorer subscribers.

Since computers that are connected to the Internet for only 90

minutes a day are not much good for web servers, there really would be little purpose for us to use static addressing.

Q. *Is the PICT file format compressed? I was under the impression that it is not. I took a screen shot; it was made as a PICT file, 185K. I sent it over to the PC as a .pic file. It opened it as a "QuickTime" file and reported that it was 185K compressed and 614K uncompressed. When the PC converted the .pic file to a .bmp file (bitmap), it was 901K. I opened the PICT file with JPEGView. It reported the file as 182K _uncompressed_ and 515K offscreen bitmap. What's the difference between "uncompressed" and "offscreen bitmap?" I thought both terms referred to an image in which*

"The whole point of IP, Internet Protocol, is to give each computer on that internet an identifying number that is unique to the internet. That is, first the networks are numbered (no two having the same number), then the computers (or other nodes) on each network are numbered (no two having the same number)."

the value of every pixel is known. Does PICT's "uncompressed" format say, "312 pixels on this line with value xxx," as opposed to listing the (identical) values of the 312 pixels?

A. There's really no good place to start answering the questions posed in this message. A real answer would

probably require your checking out a book called *Inside Macintosh: Graphics*, but here's a start:

Q. *Is the PICT file format compressed? I was under the impression that it is not.*

A. A Macintosh PICT graphic is, like PostScript, a list of drawing commands rather than any big pixel-mapped image. You can put pixel-mapped regions into your PostScript drawing, and in the same way you can put pixel-mapped regions into your QuickDraw (PICT) drawing. But the drawing itself is still a list of instructions or commands to replicate the drawing *into* a drawing region such as a printed page, a video screen, or an off-screen storage area.

Q. *To test the theory that a PICT file is compressed I took a screen shot; it was made as a PICT file, 185K.*

A. The following is what happens when you do that. The program starts recording drawing commands into a buffer. It issues essentially one drawing command: "draw this rectangle, and fill it with the following pixel values." (In practice, there are also some extra commands to frame the context and specify height, width, pixel depth, etc.) Then it stops recording those commands and closes the buffer. Since this is going to a 'PICT' file on disk, the buffer gets written (along with 512 bytes or something of descriptive header) to disk.

The practical upshot is that you have a big pixel-mapped graphic on disk. In actuality, you have a set of instructions on disk that can reproduce such a graphic for you. So to open the file and display the image, you're not just reading pixel data—you're reading a sequence of instructions and following through step-by-step until it says "the treasure's



right here—now dig.”

Q. When the PC converted the .pic file to a .bmp file (bitmap), it was 901K.

A. You didn't mention what software did this on the PC, except that it made use of Apple's QuickTime software to handle the conversion. (Since there are parts of QuickDraw which are protected by patents, anything which can follow that list and perform all those drawing actions is basically reimplementing QuickDraw.) But I'd say it's a fair guess that the pixel map into which it's reproducing the original graphic is a 24-bit or 32-bit one for editing, while the original pixel data is stored as 8-bit pixels.

Q. What's the difference between "uncompressed" and "offscreen bitmap"?

A. "Uncompressed" refers to data. "Offscreen bitmap" refers to a location in which one might render that data (as opposed to rendering it on-screen, or in a printer's imaging buffer.) There's no correlation between the two terms.

When JPEGView refers to an "uncompressed PICT" it's mincing words. JPEGView is QuickTime-savvy. QuickTime extends QuickDraw. QuickDraw might ask QuickTime to compress or decompress (using QuickTime's plug-in codec architecture) some data out of or into a pixel-mapped region. Go back to the explanation I gave you of the screen shot. In the screen shot, the software told QuickDraw to just place all those pixels sequentially into the graphic, as QuickDraw knows how to do. A different program, on the other hand, might use a different QuickDraw command: one which asks QuickTime to use a particular codec to store the image data in some compressed manner.

IMPORTANT — remember that this is still a list of instructions. A given PICT file might describe five circles, a paragraph of text, a large JPEG, compressed pixel-mapped photograph, some scalable artwork made of lines and polygons, AND a flurry of uncompressed pixel-mapped graphics. This is not something which can be perfectly replicated in a PC photo-retouching program. The polygons and circles will look beautiful in print, and not so beautiful on the PC screen. A PICT file contains any combination of all of this stuff. And picture data on the Clipboard contains any combination of all of this stuff. Do you consider this complicated image to be "compressed" or "uncompressed"? Dunno. The QuickDraw PICT format is fairly compact, except when dealing with large pixel-mapped graphics. And in this drawing, we have both compressed and uncompressed examples of pixel-mapped graphics. (Some lossy, some not.) JPEGView would most likely call this a "compressed" graphic, I believe, because it -does- require QuickTime to decode one element contained within it. The picture would not display correctly on a machine which didn't contain QuickTime, and therefore didn't extend QuickDraw to support codecs.

Loaded question, loaded answer. I hope some of this lays the groundwork for your discovering what you wanted to know.

Q. I would like to know how to attach a file to an e-mail message in ZTerm. This would be a graphics file from Photoshop.

- Should I save as a TIFF or an EPS?
- Should I encode it?
- Once I've written my e-mail message, how do I attach the graphics file?

I've been able to receive such files and decode and open them up,

but have no clue how to send them.

A. By using the verb "attach," you are implying a method of sending files that is very hard to do using ZTerm (but very easy to do using Eudora or Claris EM@iler with TCS Explorer service). However, with a little bit of work you can "include" a file in outgoing e-mail with Explorer, provided that the recipient knows how to manually take the received e-mail and manually extract the file that you send.

First, the decision on whether to send a TIF, EPS, or even the original Photoshop document depends on what software your recipient has. Ask what they would like to receive.

Second, whatever this file is, use StuffIt Deluxe to make it smaller. While this step is, strictly speaking, optional, both you and your recipient will appreciate how it makes life easier. (If the recipient does not have a Mac, skip this step.)

Third, find out what kind of software your recipient has, and whether they can manually decode files that are encoded in either BinHex, UUEncode, or Base64 format. Each is a method of taking a file and encoding it into the normal alphabet that can pass through the e-mail system. If both you and your recipient have Macs, use BinHex.

Fourth, upload your message, the encoded file, to the TCS e-mail system. Since I've never done this, I'll leave it to you to figure out if I haven't lost you thus far in the story. P.S. Sure you don't want a TCS Explorer account?

Note: You can help. If you see a good exchange of ideas on the TCS that you would like to see included in this Journal column please send the entire messages to: nancys@tcs.wap.org ■

GRAPHIC TIPS

by Carol O'Connor

Will You Risk Making Uncle Sam Mad at You?



You Could
Make Him
Really
Cranky...



...with the Polar Coordinates Filter!

What are Polar Coordinates?

Polar Coordinates is a term Adobe uses to describe the pair of lovely white arctic bears which now appear on all, new, white-as-a-glacier, Photoshop screens. No, seriously, they are distortion filters.

How many Polar Coordinates are there?

Two. One is called Polar to Rectangular and the other is called Rectangular to Polar. They have different personalities. To polar is sweet and round and feminine. To rectangular is like pickle juice, ferocious like the bears, very muscular and masculine.

Is it easy to learn how to use these filters?

No. It took me three days and extended chin scratching to figure them out. But I feel compelled to pass on some tips to reduce the slope of the learning curve. It is worth the effort, in my opinion. I had fun, and I hope you will also.

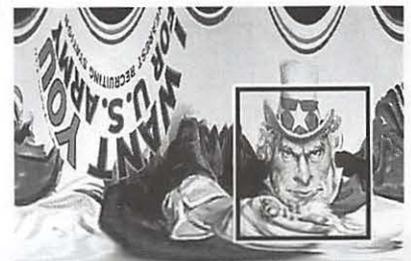
Here's How To Do It

Turn the original image on its side. The filter will rearrange the left and right sides of any graphic it distorts, so, to get the effect we are looking for, Sam's avuncular face must be repositioned.

The original image is from the Planet Art CD title: Advertising Art.



Apply the Polar to Rectangular Filter with the result shown on the right. Sam's face, distorted as desired, is then cropped from the new image. The trick, of course, is to figure out what will happen when the filter is applied. If you really want to know, keep reading.





It was hard to resist the temptation to include this example along with Uncle Sam. The cowboy is done in exactly the same way as described on the previous page.

I like the way the gun and the eye have come together and the eyes are more squinty.

As I played with the filter, I realized I had to have a map to show where the pixels would migrate. A rudimentary map, with tones set in horizontal rows and letters/numbers set in vertical rows is such a map. See the next page.

Studying the map and experimentation gave me enough control to make the application of the filters more than a game of blind-man's-buff.

1. Dead Aim with the Polar to Rectangular Filter



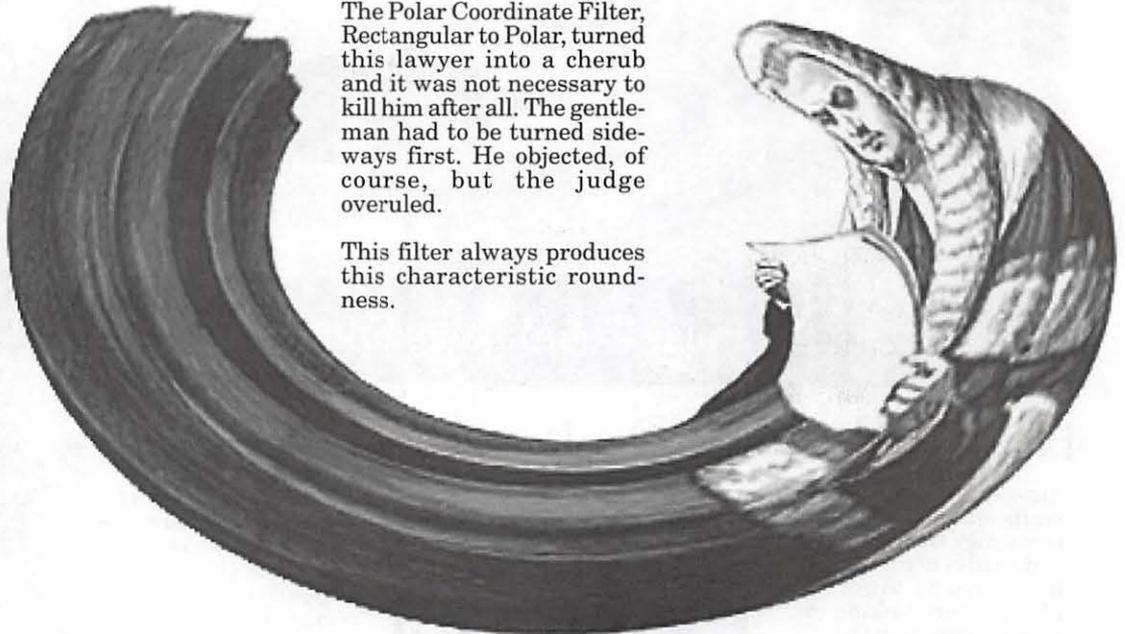
Another Example: *Here's How to Avoid Killing a Lawyer*



Shakespeare said, "First, Kill all the Lawyers..."

The Polar Coordinate Filter, Rectangular to Polar, turned this lawyer into a cherub and it was not necessary to kill him after all. The gentleman had to be turned sideways first. He objected, of course, but the judge overruled.

This filter always produces this characteristic roundness.



2. Zap the Lawyer with the Rectangular to Polar Filter

Predicting What the Filters Will Do Why We Need Maps



Select a simple Photoshop graphic.



Then go to Distort> Polar Coordinates> Rectangular to Polar and click OK. The tip of the leaf moves down to near the center and the other tips round about somehow.



Use the same image and choose the Polar to Rectangular filter radio button. Then click OK. Well, it is hard to explain what happens.. We need MAPS! See below.

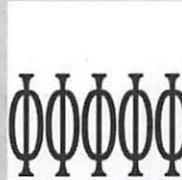
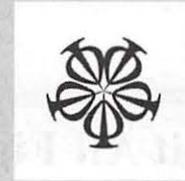
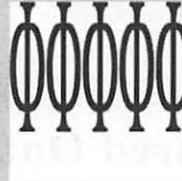
What happens when the filters are applied?

While the leaf on the left is hard to interpret, the maps at the bottom of the page are easier. Studying the second map, the rectangular to polar filter, one can predict that whatever touches the top border will migrate to the exact center of the new image. Placing objects horizontally, but lower on the page will result in a circular pattern.

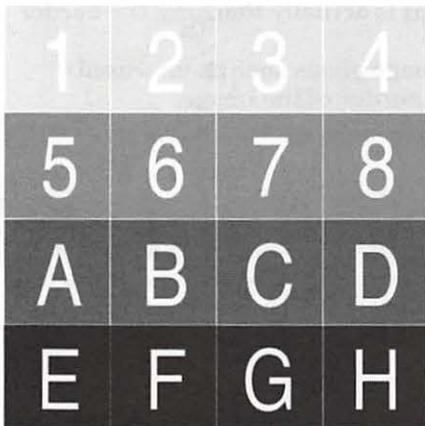
Rectangular To Polar Filter

Before

After

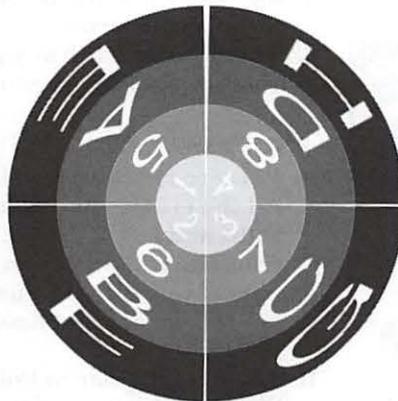


Map 1



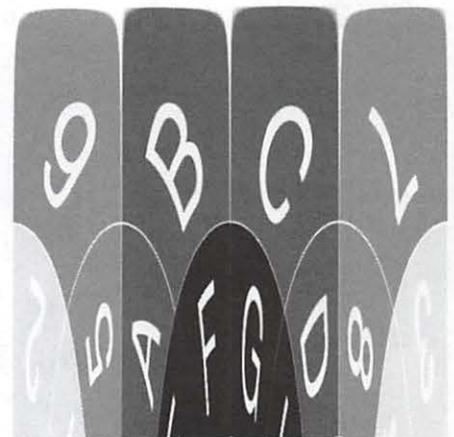
Study this image and compare it to the next two.

Map 2



Notice that the numbers 1,2,3 and 4 all migrated to the center. The other parts all arranged themselves in an orderly fashion around that center. Conclusion: All pixels at the top of the image will be rearranged in a circle at the center and pixels at the bottom will be rearranged along the outer periphery of a circle.

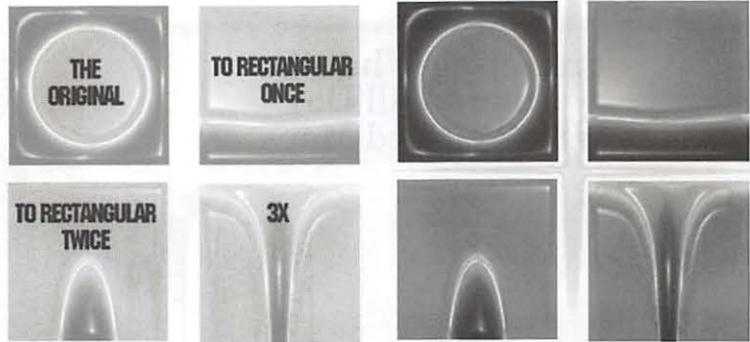
Map 3



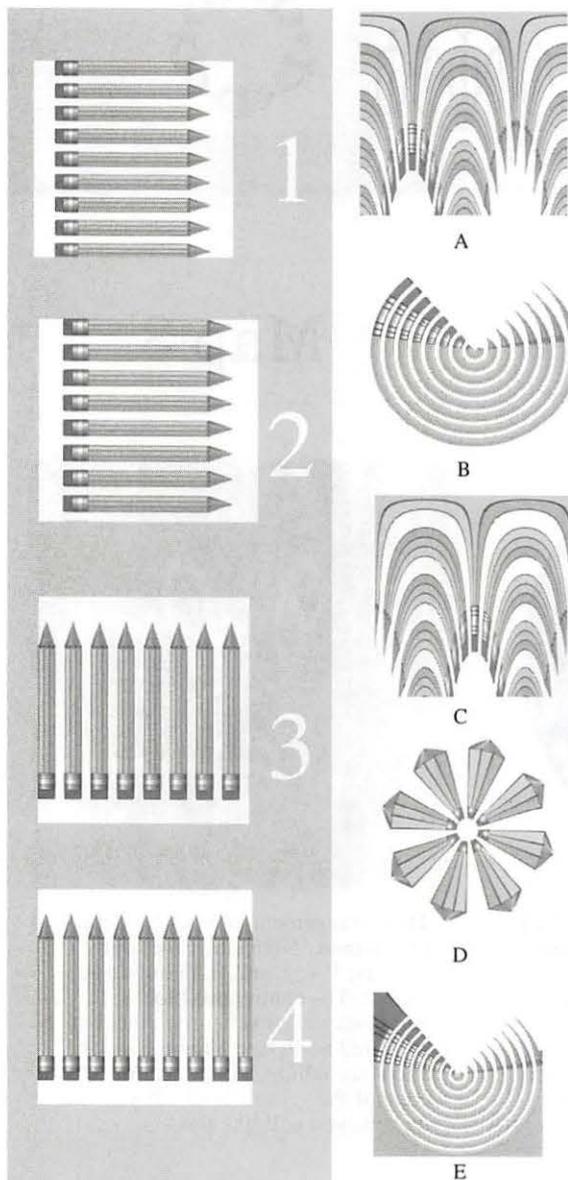
This arrangement is much harder to understand. Notice that the four corners, 1, 4, E and H all but disappeared. The contiguous blocks, B, C, F and G stayed most nearly intact but migrated north like a fountain. 5, 6, 7 and 8 are falling, like water from the edge of the verticle spray. If you like puzzles, you will like this!

Apply a Filter Multiple Times to Dramatically Change the Effect

If the original image is round, the Polar to Rectangular filter will flatten it out, as you can see in this example. Repeating the filter will only intensify if continued repeats are applied. In the example given here, the Photoshop 4.0 filter, Artistic>Plastic Wrap was applied when the set of four images became complete.



Got it All Figured Out? Play This Game and Clinch It!



This is a game.

Begin by naming the filter which produced each effect in column two: A, B, C, D and E. Then, determine which was the original image in column 1 on which the filter was run. If you determine the answer by counting pencils, (considered cheating), then compensate by explaining why the image turns out the way it does. The answers appear below.

Hint: Think about the things that matter when using the filters:

1. The orientation of the original (Horizontal or Vertical).
2. The amount of space between the critical element (what you want to distort) and the the borders of the image.
3. Whether the original is a square or a rectangle.
4. Whether the critical element is facing up or down, left or right.
5. Whether the critical element is actually touching the border of the image or not.
6. Whether there are any garbage pixels such as unerased lines or pixels near or on a border of the image.

The Answers:

- A. Polar to Rectangular filter run on Figure 1.**
All the erasers and points are collected and grouped to the right and left of center. The *side* of a pencil is bent upward from the center, not an eraser as in Figure C. It is characteristic of this filter to push up from the bottom center and to spread up, out and finally down along the left and right borders.
- B. The Rectangular to Polar filter, run on Figure 2.**
Since the last pencil in the original is NOT touching the edge, the translation is clean. Compare to E. In order for straight lines to become circles, they must be oriented horizontally in the original graphic.
- C. The Polar to Rectangular filter run on Figure 4.**
Notice that all the erasers appear in the middle.
- D. Rectangular to Polar from none of the originals offered.**
The erasers would have to be pointing to the top in Figure 3 for the filter to act this way.
- E. Rectangular to Polar filter from Figure 1.**
Notice that the bottom pencil is touching the border in Figure 1 and filling all the space at the bottom of Figure E.

Telecommunications Help Sheet

A quick reference sheet for use while on the TCS

TCS Phone Numbers:

—301-984-4066

(for 300, 1200, 2400 bps)

—301-984-4070

(for 9600, 14400, 28800 bps)

Main Menu

- Bulletin Boards
- <C> Change Conferences
- <E> E-Mail
- <F> File Transfer
- <L> General Library
- <M> Membership Search
- <N> Now On System
- <O> Off the System
- <P> Public Library
- <T> Time and Date
- <U> User Preferences
- <W> Read Welcome Bulletin
- <X> eXamine Weather Forecast

File Transfer Menu

- <A> Adjust Pointers
- <G> Global Read New Descs
- <L> List All Available Areas
- <N> New File Descriptions
- <O> Off the System
- <Q> Quit to Main Menu
- <R> Read All New Descs
- <Z> Zselect File Areas

File Area Menu

- <A> Alphabetical List
- Batch Functions
- <C> Change File Area
- <D> Download a File
- <F> Find File Descriptions
- <H> Help With File Transfer
- <I> Info on File Contents
- <L> List All Files
- <M> Mark Files for Downloading
- <O> Off the System
- <Q> Quit to Main Menu
- <R> Read File Descriptions
- <T> TitleScan Descriptions
- <U> Upload a File or Files
- <W> Welcome Bulletin

Editor Menu

- <A> Add to File
- <C> Clear File in Memory
- <D> Delete a line from File (#)
- <E> Edit a Line (#)
- <F> Find a String
- <G> Global Search & Replace
- <I> Insert Lines into File (#)
- <L> List the File (#)
- <M> Toggle Reply Mode
- <N> Line Numbering Mode On/Off
- <P> Purge Temporary File
- <Q> Quit - Clear File & Exit
- <R> Read back from Temporary File
- <S> Save File and Exit Editor
- <T> Write File to Temporary File
- <U> Upload Mode Toggle (No Reply Mode)
- <V> View Temporary File
- <X> Exchange a String within line (#)
- <"> Modify Reply Mode Characters

Change Conference Menu

- <1-8> ... Choose Conference Number
- <L> List Conferences Available
- <Q> Quit to Main Menu
- <1> General Conference
- <2> Apple II Conference
- <3> Macintosh Conference
- <4> Classified Conference
- <5> Global General Conference
- <6> Global Apple II Conference
- <7> Global Macintosh Conference
- <8> Global Miscellany Conference

Conference Menu

- <A> Adjust Pointers
- <C> Change Conference

- <G> Global Read All New Msgs
- <L> List All Available Boards
- <O> Off the System
- <Q> Quit to Main Menu
- <R> Read All New Msgs
- <W> Welcome Bulletin
- <X> Xfer All New Msgs
- <Z> Zselect Boards of Interest

Bulletin Board Menu

- <A> Alter/Edit an Existing Message
- Blind Reply to a Msg by Number
- <C> Change Boards
- <D> Delete Msg From or To You
- <E> Enter a Message
- <F> Find Message by Keyword
- <L> Library for this Board
- <O> Off the System
- <Q> Quit to Main Menu
- <R> Read a Msg or Msgs
- <S> Scan Message Headers
- <T> TitleScan Msg Headers
- <W> Welcome Bulletin for Board
- <X> Xfer (Download) a Msg or Msgs

User Preferences

- <A> Alter Password
- <E> Emulation Mode
- <F> File Transfer Protocol
- <P> Prompt Character
- <Q> Quit to Main Menu
- <R> Reply Mode Prefix
- <V> Video Length
- <X> Expert/Novice Prompts
- <Y> Your Current Status

Electronic Mail Menu

- Blind Reply to a Letter
- <D> Delete Letters
- <E> Enter a Letter
- <F> Find Letters
- <H> Help/Brief Tutorial
- <I> Info on Letters
- <K> Keep Letters
- <L> List Letters
- <O> Off the System
- <Q> Quit to Main Menu
- <R> Read Letters
- <S> Scan Headers of Letters
- <T> TitleScan Letters
- <X> Xfer (Download) Letters

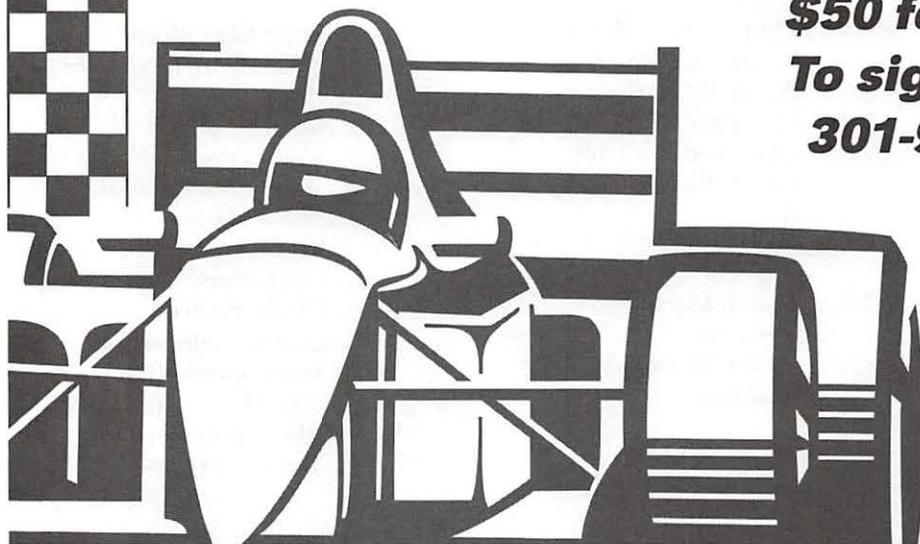
Please see page 44 for the TCS Help Hotline phone numbers.



**Win With
Washington Apple Pi
Tutorials**

- *Introduction to the Macintosh*
- *Maintaining Your Macintosh*
- *Adobe Illustrator, Photoshop, PageMaker*
- *Introduction to the Internet*
- *Web Page Authoring*
- *EMail, News Groups, Chat, Web Browsers*
- *Macromind Director*
- *Microsoft Word*
- *Claris Works*
- *Infini-D*
- *And More*

**Each 3-hour class is
\$35 for members
\$50 for others
To sign up call
301-984-0300**





Macintosh Tutorials

VOLUNTEERS AND INSTRUCTORS—You can't have training without teachers. If you have expertise in any subject useful to Mac or Apple users, please consider teaching. Instructors have an opportunity to work with students in small groups and informal settings. The teaching process is truly rewarding. Besides the spiritual and intellectual, rewards also include compensation; you will be paid. We especially need someone who can offer training on the Internet. Call me if there is a subject that you are qualified to teach.

I am very pleased with the response to our requests for volunteers. We have a very bright and enthusiastic group of volunteers working to bring you the best possible classes and programs. We encourage and welcome additional support for the training program. Graphic designers, desktop publishers, and illustrators—we could use your help in promoting our programs with brochures and fliers. For further information call Beth Medlin at the Pi office, 301-984-0300.

Some Specifics

■ **Where:** Unless otherwise stated, all tutorials sponsored by Washington Apple Pi are given at the office located at 12022 Parklawn Drive, Rockville, MD.

■ **When:** Unless otherwise stated, all tutorials are three hours in length and begin at 7:00 P.M. on the date listed. The office building is secured at 6:00 P.M.

■ **Fees:** \$35 per class for members and \$50 per class for nonmembers. Pre-registration and payment must be made to hold a seat.

■ **Class size:** Class size is limited to 6 students.

■ **Student cancellation:** A cancellation must be received by the office 72 hours before a class is scheduled. The only exception to this is a cancellation due to illness.

Macintosh Tutorials

The Macintosh tutorials are two two-part classes. **Introduction to the Macintosh** and **Intermediate Macintosh**, designed for beginning users or those wanting to brush up on their skills. The primary focus of these courses will be on the System, Desktop, Icons, Windows, and basic concepts in System 7. System 6 hangers-on are welcome and encouraged to participate as well—their issues and concerns will be addressed. Please try to take all four parts; this is the most beneficial arrangement.

Class Descriptions and Dates

Introduction to the Mac Part 1

You should go through the Guided Tour disk that comes with your computer or system upgrade kit prior to the class. You'll learn: how to safely turn your Macintosh on and off; the basic dos and don'ts; how to understand common Macintosh terminology found in manuals and other documentation; and how the basic components of your Macintosh

system, hardware and software work. You'll also learn why the Macintosh user interface is consistent across all applications and how this makes learning and using software easier. This is part one of a two part class. Both parts of the class must be taken in the same month. The price is \$70 for both parts (\$100 for nonmembers). 5/5/97 7-10 pm & 6/2/97 7-10 pm

Introduction to the Mac Part 2

Part II will continue the exploration of the basic components of your Macintosh system, hardware and software. You'll learn more of the dos and don'ts; the finer points of the Menu Bar; and Error Messages, Dialog Boxes, Icons, Folders, Keyboard Shortcuts, Scrapbook and Clipboard will be discussed. You'll learn the basics of installing software, as well as use of the Chooser and peripheral devices, and how they are connected to the Macintosh. This is part two of a two part class. Both parts of the class must be taken in the same month. The price is \$70 for both parts (\$100 for nonmembers). 5/12, 7-10 pm
6/9/97, 7-10 pm

Intermediate Mac Part 1

Intermediate Macintosh, Part I will follow up on the concepts in Introduction to Macintosh. You will learn more advanced Macintosh skills and terminology, and about using, installing, and updating system files; about managing memory, hard disk space, fonts, sounds and other resources; the Apple menu, aliases, launching applications, inter-application communications (Publish and Subscribe), and Balloon Help. You'll also learn how to buy hardware and software, how to upgrade, and what kinds of software are available for your Macintosh. This is part one of a two part class. Both parts of the class must be taken in the same month. The price is \$70 for both



parts (\$100 for nonmembers).
5/19/97 7-10 pm
6/16/97 7-10 pm

Intermediate Mac Part 2

How to maintain and troubleshoot your Mac. Topics will include: organizing and managing your hard disk; backing up information and backup strategies, archiving, disk formatting, defragmentation and optimization; managing start-up resources (including System 7 extensions or System 6 INITs); avoiding conflicts and incompatibilities; virus protection; memory management; upgrading or replacing the operating system; system enhancements; customizing software installation; cleaning your mouse; and Macintosh "housekeeping" philosophies. This is part two of a two part class. Both parts of the class must be taken in the same month. The price is \$70 for both parts (\$100 for nonmembers).
5/26, 7-10 pm
6/23/97, 7-10 pm

Introductory Word 5.1

A basic introduction to word processing using Microsoft Word 5.1. Create, edit, save and print documents with basic headers and footers. Manipulate text and formats using cut, copy and paste techniques. Find and change text and format characters. Format text using ruler and menu selections. Move text within and between documents. Check spelling and create your own tailored spelling dictionaries. Two three hour sessions on consecutive weeks for \$70 (\$100 for nonmembers).

Call office for dates

Introduction to ClarisWorks

This class will introduce the student to the integrated software package, ClarisWorks. The course will begin with an introduction to the fundamentals of the ClarisWorks environment: the window layout, the help menu, and the universal commands.

Each of the six modules (Text, Draw, Paint, Spreadsheet, Database, and Communications) will be treated separately but the emphasis will be on text and draw documents. The course will conclude with an examination of some basic integrated applications. Students should come with a basic familiarity with the Macintosh environment. The price is \$35 (\$50 for nonmembers).

5/17/97 9 - Noon
6/21/97 9 - Noon

Intermediate ClarisWorks

A class for those who have some experience with ClarisWorks. This class will focus on the word processor and integrating the other tools into the word processor. Coverage will focus on: combining different elements in multi-column documents, and documents with multiple elements, such as newsletters, tables, bulleted lists, outlines, mail merge, etc. The price is \$35 (\$50 for nonmembers).
5/17/97 12:30 - 3:30 pm
6/21/97 12:30 - 3:30 pm

Introduction to PageMaker

This course is for new users of PageMaker. It will cover using the various tools in the tools palette, the commands in the pull-down menus, and the control palette. You will learn how to create pages, bring in various types of text and graphics and do page layout. Before coming to this class students should have some experience using the Macintosh. The price is \$35 (\$50 for nonmembers). 6/17/97 7pm - 10pm

Internet

A thorough introduction to the features and services of the Internet. The primary focus will center around detailed demonstrations of the major Internet applications for the Macintosh. (2 parts) The price is \$70 for both parts (\$100 for nonmembers).

5/20/97, 7 - 9 pm & 5/27/97, 7 - 10 pm
6/19/97, 7 - 9 pm & 6/26/97, 7 - 10 pm

Using the World Wide Web

Prerequisite: Internet tutorial or equivalent experience. Class members will explore the configuration options and features of Netscape, Microsoft Internet Explorer and Cyberdog. Topics include adding functionality with browser plug-ins, using multiple browser windows, searching the Web, and an introduction to Java and ActiveX. You will learn how to download and use helper applications. We will review file compression, encoding, and virus protection, and explore download alternatives: FTP with Fetch and Anarchie. The price is \$35 (\$50 for nonmembers).
5/6/97 7 pm - 10 pm
6/11/97 10 am - 1 pm

Email to the Max

Prerequisite: Internet tutorial or equivalent experience. Class members will explore the configuration options and features of stand-alone applications (Eudora, Claris) versus email functions in Web browsers. Topics include using mail filters to manage multiple mailboxes, configurations for more than one username or account, and sending and receiving attachments to email, with a relevant discussion of compression, encoding, and virus protection. You will learn how to find, subscribe to and unsubscribe from Listserv and majordomo mailing lists, and how to set up and maintain a mailing list. We will also look at a new direction in email: HotMail, a free Web-based emailer. The price is \$35 (\$50 for nonmembers).
5/14/97 10 am - 1 pm
6/18/97 10 am - 1 pm

Usenet News and Interactive Relay Chat (IRC)

Prerequisite: Internet tutorial or equivalent experience. Class mem-



bers will explore the configuration options and features of stand-alone newsreaders (Newswatcher, Nuntius, YANewswatcher) versus news functions in Web browsers. Topics include subscribing to and unsubscribing from newsgroups, and searching Usenet through AltaVista. We will also explore the configuration options and features of IRC applications (ircle, Homer, Netscape Chat) and the use of different IRC networks (EFFnet, Undernet, DALnet, Anothernet) as well as Web-accessible channels. Topics include choosing and registering your nick, floods, bots, netsplits, security considerations and channel configuration for privacy. The price is \$35 (\$50 for nonmembers).

5/21/97 10 am - 1pm
6/30/97 7 pm - 10 pm

HTML Part 1-The basics

An introduction to HTML (HyperText Markup Language) with a review of the Internet and the World Wide Web; what it is and how it works; what you need to worry about (bandwidth, standards); and what you need from an ISP (Internet Service Provider). Web documents are examined, looking at format and content; images (particularly fast-loading and transparent images); HTML (what a tag is and how does it work with browsers); and HTML editors; and concluding with how to use Web sources for more information. The price is \$35 (\$50 for nonmembers).

Call office for dates

HTML Part 2-Beyond the basics

Prior to class student must make and submit 2 sample Web pages for class review. HTML (document layout, file management issues, Using CGI scripts, Testing, Getting noticed); Using enhanced functions (Sound, Animation GIFS, Movies, other bells and whistles). The price is \$35 (\$50 for nonmembers).

Call office for dates

Learn how to use the TCS! (the Pi's legendary bulletin board)

Learn how to use the TCS (the Pi's legendary bulletin board) Learn how to use the TCS (the Pi's legendary bulletin board). Learn how to configure ZTerm (a telecommunications program); and how to log on to the TCS and send and receive Internet e-mail. You'll also learn how to navigate around the TCS's conference system, and both read and enter messages and download files. The price is \$35 (\$50 for nonmembers).

Call office for dates

Introduction to Photoshop

This is an introductory class with a fiery finish to make the student feel competent to perform enough razzle dazzle to impress the family. Bring three new floppies and receive in return three floppies filled with Photoshop goodies, including tips about using filters for special effects. The price is \$35 (\$50 for nonmembers).

5/15/97 3 pm - 6 pm
6/3/97 3 pm - 6 pm

Advanced Photoshop Techniques

This is an advanced class for those with a good working knowledge of Photoshop. Subjects covered will include working with layers and channels, reading and manipulating histograms, levels controls and other delicate global controls to enhance your image. Bring three new floppies and receive in return three floppies filled with Photoshop goodies, including tips about using filters for special effects. The price is \$35 (\$50 for nonmembers).

6/4/97 3 pm - 6 pm

Photoshop Special Effects

This class will teach when to use filter effects and more importantly when not to use them. You will learn how to create your own effects for

greater control. The class will explore the special lighting effects to make your name appear set under cabaret lights and to make a stucco wall show light from a wall lamp or a flashlight. The use of channels to control graphic effects will be explained as well as the use of layer masks. Learn how to combine two images smoothly and stylishly. You will learn how to make text communicate, not just spell. The price is \$35 (\$50 for nonmembers).

6/5/97 7pm - 10 pm

Photoshop for Web Graphics

This class will cover how to make exciting buttons, realistic backgrounds, neat icons and at least two small animations with GifBuilder (freeware utility for you to take home). You will learn why, when and how to use correct resolution and indexed color palettes. Other technical matters of concern for Web graphic designers will be covered. The price is \$35 (\$50 for nonmembers). 6/4/97 7 pm -10 pm

Adobe Illustrator Introduction

This is an introductory class covering fundamental material, but the class will deliver enough glitzy stuff to let the student get a decent little early portfolio started. Specific basics covered will be drawing with the pen tool, overview of the tools and palettes, speed tips, basic layering, six design techniques which deliver razzle dazzle results for any graphic project. Bring a box of floppies and receive to copy twenty files to take home. The price is \$35 (\$50 for nonmembers).

5/15/97 7 pm - 10 pm
6/3/97 7 pm -10 pm

Adobe Illustrator Intermediate

This is a class for those with a working knowledge of Illustrator. Subjects covered will include drawing with blends and gradients, using layers, three technical illustration



techniques, three techniques for rendering natural objects like leaves and small animals, three text handling procedures for presentation graphics, three perspective drawing techniques useful for technical illustration. Bring a box of floppies to copy many files for reference and practice. The price is \$35 (\$50 for nonmembers). 5/29/97 3 pm - 6 pm

Adobe Illustrator Advanced

The class will cover modeling realistic objects like telephones, computer keyboards, airplanes, insects, for example rasterizing a vector image for inclusion in a Photoshop file or a web site graphic. There will be an introduction to Adobe Dimension for 3-D modeling of vector files. Bring a box of floppies to copy many files for reference and practice. The price is \$35 (\$50 for nonmembers). 5/29/97 7 pm - 10 pm
6/24/97 7 pm - 10 pm

Introduction to Infini-D

The class will cover an overview of

the program, basic 3-D modeling, a demonstration of basic animation, making 3-D text with bevels, assembly of simple objects in a scene, setting the lights, understanding the Workshop, and the basics of modeling. The price is \$35 (\$50 for nonmembers).

6/5/97 3 pm - 6 pm

Introduction to Macromind Director (New)

The class will cover an overview of the program, demos, three realistic projects to take home as projector files you can play anywhere without the Director application on your hard drive, and sound and animation basics. The price is \$35 (\$50 for nonmembers).

6/24/97 3 pm - 6 pm

ClarisWorks Database: Introduction

This course covers basic principles of using a database to organize information, defining fields, discussion of field types, how to use multiple Layouts, entering data into

fields, use of online Help function, and searching for information in the database. The class is appropriate for versions 2, 3, or 4 of ClarisWorks. Prerequisite: Introduction to the Macintosh, Parts 1, 2 and 3, or a good knowledge of the Mac OS and its interface.

Call Office for Dates

ClarisWorks Database: Intermediate

This course covers modifying a database to provide ease of use, improving the appearance of a database by importing graphics, integration with other ClarisWorks modules (for example, the Draw and Word Processing modules), importing and exporting data from ClarisWorks, recording and using Macros, and use of formulas. The class is appropriate for versions 2, 3, 4 or ClarisWorks. Prerequisite: ClarisWorks Database Introduction, or equivalent experience.

Call Office for Dates. ■

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A Brief History of Fonts

(As a membership service, Washington Apple Pi has made arrangements with a new on-line magazine, MDJournal, to introduce you to its contents. We approached the editors of this publication with a request to reprint whole articles from their magazine so that you would be better able to judge the value of its contents. They accepted our suggestion; you are the beneficiary. One of the many regular features of the MDJournal is something the editors call "MacCyclopedia". It is a series designed to explain how your Macintosh works.

At Washington Apple Pi, we believe you have a healthy curiosity about your computer, and articles that explain the innards of the operating system that runs your computer, written in non-technical terms, are of interest to you. Your Macintosh became famous as one of the first computers that didn't force you to know how it worked to get things done. You didn't need to write code, or memorize strange commands to type; tasks were and are visually organized and usually accomplished through direct manipulation — you see what you want to do and you do it. If you want to change the color of some text, you select the text and pick the color. Other systems often made you type strange commands about the text and the color.

The goal of each MacCyclopedia article is to explain how things work in a way that non-technical people can understand. Some of the topics may take more than one reading. If that is true for you, don't get stressed about it. At whatever level you gain insight into the workings of your Macintosh, you will be a more informed operator for the effort.

As an introduction to the MDJournal, we selected a series on the Macintosh imaging architecture. The article this month looks into the history of fonts. In the coming months, the Journal will take a quick look at QuickDraw, and examine the process through which your computer and printer interact.)

Bitmaps, Outlines, Type 1, TrueType, QuickDraw GX

EVERYONE HAS fonts, everyone uses fonts. Most people love fonts, some people hate fonts. Not because they're mean or nasty or creative, but because they're a pain in the butt to manage. You use a font on your system, and you take the document to another, ostensibly identical Macintosh and you get Geneva substituted for everything. You read advice that tells you to never use TrueType, then other advice that tells you to always use TrueType.

ATM is your friend, says one book; ATM is evil incarnate says another. You don't even know why you have ATM on your system and suddenly it's poisoning your mind.

From Bitmaps to Outlines

When the Macintosh was first released in 1984, fonts were simply stored as bitmaps—chunks of data which described how to form particular character at a particular point size. Bitmaps were the only kinds of fonts, stored in resources of type 'FONT' with numerical ID values from 2 to 255. Someone appar-

ently thought that no one would want more than 253 separate fonts.

Whoever that person was, he or she was quickly proved wrong. Given relative typographical freedom, Mac users went crazy, creating new fonts right and left. Since the Macintosh system software refers to them internally by their numerical ID, and since there were more than 254 fonts, there were collisions in the relatively small ID space; users who had a font as ID 200 on their system might find font ID 200 to be an entirely different typeface on another Macintosh, such that taking a document from one computer to another could cause the fonts to switch.

Further, fonts were limited to the plain style—any time a user asked for a font in bold or italic styles, QuickDraw (the graphics routines built into the Mac OS) would mathematically embolden (or slant) the plain typeface. In many cases this is acceptable, but many classic typefaces, such as Times, have hand-drawn italic and bold versions where characters look significantly different. For example, look at the difference in the plain "a" and the italic "a" in Times.

In 1986, with the introduction of the Macintosh Plus, Apple significantly expanded the font capabilities of the Macintosh. First, they created a new font resource - the contents were identical to the familiar 'FONT' resource, but the "new font," or 'NFNT' resource, had a different numbering scheme which divided the available range of over four billion font IDs into large ranges set aside for several different languages (technically, "scripting systems"). Apple also created the "Font Family Descriptor" ('FOND') resource to link together font families and provide additional information. The 'FOND' resource allows styled fonts to work properly - if you have a bitmap font which is a bold



version of Times, then the 'FOND' can record that, so that when you select text in plain Times and pick "Bold" from the "Style menu, QuickDraw will use the hand-drawn bold bitmap instead of mathematically emboldening the plain font. The 'FOND' resource also allowed fonts to be linked to PostScript Type 1 font files, an important feature for the imminent LaserWriter printer release.

Outline Fonts are Resolution Independent

The PostScript language built into the LaserWriter was and is a resolution-independent page description language. That means it describes things to be printed in mathematical terms, instead of as pixels in a bitmap, so they still look like the same thing if they're drawn in a different size, or at a different resolution.

Imagine a 3 X 3 grid of graph paper in which you are asked to draw a circle by shading or not shading entire squares. There's only about one way to do this - darken the middle square of each side of the grid. (If you darken all the outside squares, you get what is very obviously a square, not a circle.) It's a poor approximation of a circle, but the only reasonable one given the restrictions. However, if you were given a 1000 [Yen] 1000 grid on graph paper, with the same whole-square condition, you could form a much better rendition of a circle. That's because you know what a circle is supposed to look like.

On the other hand, if you were handed the 3 X 3 "circle" and told to magnify it to the larger grid, you'd end up with a 1000 [Yen] 1000 grid with four large squares in it, just as if you'd taken the low-resolution version and stuck it in a photocopier on "enlarge." That's what happens to QuickDraw when it tries to scale a bitmap font—it only has a blocky

picture to go by, and it doesn't know what you're trying to do, so it just makes what you gave it bigger, not smoother. Typefaces which are described mathematically—like using the equation for a circle instead of the 3 X 3 picture of one - are based on vector graphics and are called "outline" fonts because they describe the mathematical outline of each glyph to be drawn. ("Glyph" is a technical term for the visual image of a character - the character "A" may look very different in different fonts,

"When the Macintosh was first released in 1984, fonts were simply stored as bitmaps—chunks of data which described how to form particular character at a particular point size. Bitmaps were the only kinds of fonts, stored in resources of type 'FONT' with numerical ID values from 2 to 255. Someone apparently thought that no one would want more than 253 separate fonts."

and therefore be represented by several different glyphs but "A" is just one character.) An outline font can make glyphs look good at any size.

Except small ones. If you drew that circle in a 3 X 3 grid, you'd notice that, as hinted at before, the circle actually touches every square but the middle one. If a mathematical renderer was to darken every square the curve touched, you'd get that square box again. Such algorithms have to make special allowances at low resolutions or they're

no good at all.

This had always hindered such processes for personal computers. If you think about it, a character like an "a" in a 10-point font is really only about five or six pixels tall on the screen. That's awfully low resolution, and drawing letters to such a small grid without special allowances would result in visual mush.

That's part of why PostScript was successful—it introduced 'hinting' to fonts. "Hints" are ways of telling the PostScript interpreter about a curve beyond the mathematical definition. For example, a hint can tell PostScript that the cross-bar on the letter "t" is just that 'a cross-bar' so it doesn't get rendered two pixels high at low resolution when one pixel is more correct. Hints can describe horizontal and vertical stems so they're rendered evenly, so that the "l" isn't two pixels wide when the main part of the "t" is one. There are other tricks as well, but these simple additional descriptions work wonders in making curves render at lower resolutions, like a small character on a Macintosh screen.

And that's how PostScript renders characters - as mathematical outlines. For the mathematically inclined, they're stored as the coordinates to third-order parametric equations known as "Bezier curves," and several curves or lines are joined to make each character. The original LaserWriter shipped with thirteen of these high-resolution fonts built into the printer.

Type 1 Font Files and Font Downloading

However, Adobe Systems, which invented PostScript, had lots of other high-quality fonts available, which it wanted to sell to Macintosh owners for use on their new, and very expensive LaserWriter printers. In the PostScript programming language, fonts are identified by a



PostScript name, such as "Times BoldItalic", and not by ID numbers. The 'FOND' resource (you knew we were coming back to that, didn't you?) handled the mapping of Macintosh font ID numbers, or "font family numbers," into PostScript font names.

Together, Adobe and Apple also came up with a way to map those names into file names. Even though the Macintosh has 31-character file names, PostScript font names are not limited to that length, so using a PostScript font name would not work in general as a Macintosh file name. Adobe needed a way to map fonts to files and vice-versa, since they would be providing extra PostScript fonts as separate files - they had little choice, as the new fonts didn't fit the previous, bitmap Macintosh font definition. The agreed-upon scheme takes, more or less, the first five characters of the main part of the font name, plus the first three characters of any additional part, and concatenates them together into a mishmash of a file name. In our previous example, "Times - BoldItalic" would be "TimesBolIta". A favorite here is "Garamond - DemiBook", which comes out as "GaramDemBoo". When you printed with a specific font to a PostScript printer, using the LaserWriter printer driver, the driver looked to see if the PostScript version of that font existed on the printer. If it did not, the LaserWriter driver looked next in the folder where the driver was kept (at that time, the System Folder) for the mishmash-named PostScript font file, which contained a PostScript font program in its resource fork (in resources of type



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'POST'). If it was found, that was sent to the printer for use. If neither was found, PostScript would, by default, substitute Courier for the missing font. Since this would produce wildly different results from what was seen on the screen, the Apple LaserWriter driver instead took the bitmap version of the font used on the screen and created a PostScript font around it. However, instead of having nice curves to describe the letters, the "program" for each character simply drew the character's bitmap, and the PostScript interpreter in the printer would have to scale it - just like regular bitmap scaling - for various sizes, with results no better than the screen or our four-square circle example.

Those created-on-the-fly fonts

are called "Type 3" fonts by PostScript. The ones with nice mathematical curves are called "Type 1" fonts, and only Adobe knew how to make them. They were encrypted to keep them from prying eyes, and only Type 1 fonts could have the all-important hints; Type 3 fonts, which anyone could make, could not be hinted. Developers who really wanted to make Type 1 fonts could license the specification from Adobe for a lot of money.

This uneasy situation—Type 1 fonts living in separate, weirdly-named files that only Adobe or high-priced developers could make - lasted for quite some time, but as the Macintosh became more mature, and desktop publishing became more important, it became clear that the next step was to make



such resolution-independent type technology available throughout the Mac OS. Most things that could be printed other than text were already mathematically defined - curves, rectangles, polygons, etc. - so they worked well on printers with or without PostScript, which was an expensive addition to a printer. But fonts were only mathematical on PostScript printers, and Apple was making an increasing number of high-resolution printers without PostScript. Those users wanted better results, and so did those who primarily viewed type on the screen. Adobe released a product called "Adobe Type Manager" (ATM) to tap into this market segment. ATM patched into the system software such that whenever the system was about to scale a bitmap font, ATM would look for a Type 1 font file and, if it was present, use the mathematical definitions and hints within it to draw the best font possible for the size and resolution. This was especially noticeable at large point sizes, which suddenly looked perfect, and on non-PostScript printers. However, the technology was not without bugs, it cost around US\$60, and it took a fair amount of memory.

Proprietary technology led to new standards

Apple wanted a technology very much like Type 1 fonts in the system, and reportedly entered into negotiations with Adobe, but nothing ever came of it. Adobe held all the cards - it made money from PostScript, it made money from ATM, it made money from its large library of Type 1 fonts, and it made money from licensing other people to make Type 1 fonts. Wherever PostScript or mathematical, or "outline" fonts were present, there was Adobe, usually getting paid. Adobe could then command a hefty price for including their proprietary technology in the Macintosh system soft-

ware—a price so hefty that Apple refused.

Microsoft, which was only on its way to becoming the life-choking force some allege it to be now, was in a similar pickle. Microsoft had wanted PostScript-type technology for some time, but Adobe was just as obstinate, if not more so, with Bill Gates' company than it was with Apple, starting what has been a long-standing hatred of Adobe inside at least certain parts of Microsoft. Rather than abandon the entire market to Adobe, or pay exorbitant prices for it, Microsoft and Apple collaborated on a new imaging model. Microsoft was working on a PostScript clone, and Apple was internally working on an outline font format. The companies agreed to cross-license the technologies to each other and make them open standards - publishing their specifications so that anyone without licensing fees, could create fonts or imaging products which used them. The PostScript clone was named "TrueImage," which is a Microsoft trademark, and the font technology was renamed "TrueType," which is an Apple trademark.

The day after this announcement was made, Dr. John Warnock, the CEO and co-founder of Adobe Systems, in a news conference, announced that the Type 1 Font Format would be publicly released. Adobe had quickly realized that, absent this move, every printer and system in the world would soon be able to run TrueType and TrueImage, and no one would have need for Adobe products. By giving up licensing fees (and making ATM freely available in a large number of cases), Adobe hoped to keep Type 1 fonts the fonts of choice.

Depending upon whom you ask, this strategy has or has not worked. Professional publishers almost unanimously scorn TrueType because TrueType fonts historically

have not worked well on PostScript printers, which are the vast majority of high-resolution printers. Apple and Adobe have worked together over the years to correct this, and today almost every PostScript printer you can buy has TrueType font interpreter built into the PostScript ROM, courtesy of an agreement between Apple and Adobe. However, average users around the world vastly prefer TrueType fonts because they work on both Macintosh (System 7.0 or later) and Windows (3.1 or later) systems without any extra effort - no ATM, no 5-3-3 font files, none of that garbage. And they give great results.

Technically, TrueType fonts are very different. With Type 1 fonts, the program which renders font characters (usually ATM or a PostScript interpreter in a printer) has to interpret the hints, which are really just broad suggestions about character items such as stems and curves. TrueType fonts use a low-level language, almost like an assembly language, for hinting - the font designer can position each point of a font's outline fairly precisely through this language. Proponents of TrueType fonts point out that this hinting language is much more capable than Type 1 hinting, giving greater possibilities for good results at low resolutions. Type 1 proponents counter by pointing out that since the logic for Type 1 hinting is all in the font renderer, that if Adobe comes up with better hinting algorithms, as they have in the past, then all fonts will automatically benefit. However, it should be noted that this could also produce unexpected results, and some of Adobe's past improvements have required changes to fonts to be effective.

TrueType fonts are often bigger than Type 1 fonts, not only because the hinting language is more thorough, but because TrueType curves



are quadratic parametric equations, not the cubic Bezier curves used by PostScript. It can take a few quadratic curves to closely approximate a cubic curve, so some complex fonts may require more curve segments in TrueType.

Despite their wide acceptance, with cheaper PostScript printers and cheap or free ATM, it never became “easy” to deal with Type 1 fonts. Although it was never described exactly this way by Apple or Adobe, the true secret to placing the font files was that they had to be located in the same folder as the LaserWriter driver. That meant in the System Folder before System 7, and in the Extensions folder afterwards. This too, however, changed in System 7.1 with the invention of the “Fonts” folder, which became the preferred location for Type 1 fonts so that all fonts of all varieties would hopefully be in the same place. For the record, however, Type 1 fonts can be in the Fonts folder, the Extensions folder or the System Folder.

But they were still separate files, detached from the “suitcase” files containing the bitmap fonts to which they were nonetheless tied. The Type 1 fonts could not be used without at least one size of bitmap font - QuickDraw only knew about the bitmap fonts, and ATM couldn't patch in to intercept the bitmap scaling operation if the bitmap was never used. Type 1 fonts finally move into suitcase files, like every other kind of font, under QuickDraw GX.

Today, every major font foundry makes their outline fonts in both TrueType and Type 1 formats, with slightly more than two exceptions. Adobe's entire collection of very high-quality fonts is only available in Type 1 format. The only Type 1 fonts Apple ships are those enabled for use with and included with QuickDraw GX. Even Apple's PostScript printers come with TrueType versions of the built-in fonts. And Microsoft ships no Type 1 fonts in any of their product packages. ■

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Sick Mac—What to do?

by Tom Witte

• Run Apple's Disk First Aid.

DFA checks to see that files, both the instructions that your Mac uses to operate and your data, are being stored correctly. You should run this program weekly. DFA is on the DISK TOOLS DISK that came with your computer. Newer versions are also with Apple's system software updates which can be found in the file area of the TCS.

• Disable Extensions

Sometimes these little system folder goodies can cause more trouble than they are worth. In many cases they can become damaged during normal use. Start with extensions off by holding the shift key down at boot. If the problem does not occur with extensions off, you can be sure there's a bad extension in your system folder. Maybe that one you just loaded. To find the bad extension, you can use the tried-and-true method of pulling out extensions two or three at a time until you find the guilty party. Utilities like Conflict Catcher can help speed up this tedious process with some automation, which really helps when you have more than a few.

If that doesn't work, try:

• Rebuild the Desktop File(s)

The desktop file is comprised of one or more invisible files which reside on Macintosh Finder mountable media and contains information Finder uses to keep track of files and their applications. Data stored in the Desktop includes things like file and application icons, type and creator codes and semi-critical directory information. The Desktop is updated on an individual basis each time a new application is introduced (copied or mounted) to a given system. The Finder scans the new application for a BNDL resource, which provides the Desktop database with icon and file type information for the application and its respective document icons. Once the Desktop has been updated for the new application, that application no longer needs to remain present on the system for its document icons to be correctly displayed at the Finder.

The Desktop file has been problematic since the first Macs were released in 1984. A problem which plagues the Desktop is bad data, often referred to as corruption. During normal use, the Desktop will be updated often by the system, Finder or other applications. In the event that these updates are interrupted for any reason, because of a crash or an extension conflict, the data stored could be written incorrectly. Garbage in, garbage out. In most cases the bad data may not affect anything important or be



immediately noticeable, but it is possible for vital file segments to become damaged, rendering the machine completely useless or riddled with crashes and freezes.

Rebuilding the desktop is often necessary when documents fail to launch after double-clicking, or when custom icons are unexpectedly replaced with generic document or application icons. Traditionally, holding the option and command keys before the Finder loads will force the invisible desktop file to "rebuild" itself. This is often ineffective because the original desktop file was damaged, so rebuilding it only yields an updated desktop file which is still damaged.

TechTool provides a better solution to rebuilding the desktop. It actually deletes the original desktop. The next time the Finder loads, it will create a brand new desktop file.

If you are using System 7.5 or later make sure you rebuild the desktop, with the cdev Macintosh Easy Open as the only active icdev/extension (see the system 7.5 read me for more instructions).

If that doesn't work, try:

• **Disconnect Everything**

Sometimes the peripherals attached to your Macintosh will become sick. Though they seem to be OK, a semi-operational device could be causing problems which affect other aspects of your system. Disconnect *everything* from your Macintosh except the power cable. If you happen to have a Mac that does not have a power button, you'll need to leave the keyboard attached so you can activate the machine. Power up the machine and put your ear close to the case. You probably already know the sounds your drive makes when it's booting. Listen for the activity you would normally hear when the system starts up. Now power off the machine. Yes, it's OK

to power off your machine without doing a graceful shutdown. Now connect the monitor and reboot. Repeat this process as you reintroduce all of your peripherals. If it's a bad peripheral, you should see the problem reoccur once the faulty device has been reattached to the system. Sometimes it's not the device itself. Termination problems often occur when you have several devices attached to the SCSI bus. Scanners and brand-x CDROMs are notorious for causing termination problems. The introduction of a new device, though properly terminated, could affect the termination of the other devices and cause problems. Sometimes simply changing the physical order of your SCSI devices can cure termination problems. If that doesn't work, try:

• **Bring in the Heavy Artillery**

Many of you have probably used something like Norton Utilities or MacTool for correcting drive directory and media problems.

If that doesn't work, try:

• **Change the Boot Device**

Start up floppy or startup CDROM. If you have more than one hard drive attached to your Macintosh, here's something that can save you some troubleshooting time and could be a life saver in the event your system drive dies. Install a clean system on the other hard drive or a Syquest removable. If you're trying to isolate a problem, open your Startup Device control panel and configure it to boot from the secondary drive. Then restart your system and see if you can replicate the problem. If the problem no longer exists, you may have media or controller problems on your primary startup drive.

If that doesn't work, try:

• **Replace the System**

The system file contains the instructions that makes that box of stuff on your desk into a Macintosh.

Your Mac will not work without a system file and it will not work correctly with a damaged system files. There are lots of files in the system folder. Some are placed there by Apple's installer when you install the Mac's operating system. Some are placed there when you install an application. Yet others are put there by applications when they run. Sometimes one can fix a problem simply by moving Finder's and the problems Application's preferences from the Preference Folder that is in the System Folders, and restarting your Mac. Of course the right way and the more time consuming way to fix these software problems is to do FRESH install of all software.

• **Zap the PRAM**

The parameter RAM (pea-ram) is a nonvolatile RAM chip which lives on your Macintosh motherboard. This device holds special parameters independent of the system or hard drive. Some of these settings are the date, mouse speed and startup device. These are stored in the standard area of PRAM (the high 128 bytes). Below the upper 128 bytes is an area of PRAM which holds more critical settings like boot services, manufacture date, hours of use and other reserved areas used by the system software. Here's where the problem occurs: many software and hardware vendors have begun using the reserved lower areas of PRAM to store settings. Though Apple has been warning developers not to use reserved sections of PRAM because they are used by the system software, many vendors have adopted this practice. The result is havoc and chaos. Inexplicable crashes and freezes are mild symptoms. In worse scenarios, the system will not even boot. Changing the system, removing extensions or "zapping" the PRAM using the conventional method does not cure the problem. The



traditional Apple "hold the command-option-P-R keys" technique only clears the upper bytes of RAM where the problem does not reside. Historically, the only way to correct lower PRAM problems was to open up the Mac and momentarily remove the PRAM battery which would clear the PRAM allowing the Mac ROM to replace the data with default settings. Of course, this procedure is a pain in the pants and not a job for the faint of heart. MicroMat developed a great freeware utility TechTool for doing just this. TechTool is the only utility which will clear ALL of PRAM without the need to break out the surgical mask and static control strap.

If that doesn't work, try:

While Norton is a wonderful utility, there's many aspects of the Macintosh which it does not address. Vital components like

RAM, ROM, CPU, cache, input devices like mouse and keyboard, VRAM (video RAM) and other electronic components on the Mac logic board deserve as much attention as the hard drive which stores your data.

RAM is susceptible to damage. Static, heat and even normal air moisture can damage the RAM used to store your Mac's workspace. In its worse form, damaged RAM will prevent the Mac from booting and will render the proverbial "Sad Mac" screen. The most common symptom of bad RAM is much more deceiving. Usually the symptom will be inexplicable freeze ups which are difficult to reliably reproduce. Any of the above troubleshooting techniques won't isolate the problem. In fact, conventional techniques will prove to be more frustrating since the problem will appear intermittently, leading you to believe you've isolated the

problem only to later discover the problem still exists. Without a diagnostic, the only way to test RAM is by isolation (removing and replacing modules until the faulty chip is found) or by using an expensive SIMM tester. Isolation testing not only requires the user to disassemble his/her machine, but also requires additional memory to be used for swapping.

Hardware diagnostics can be the saviour to a troubled Mac's soul. These are programs dedicated to testing the critical components of your system to isolate the cause of malfunctions. TechTool Pro creator MicroMat Computer Systems has been developing diagnostic products for Macintosh since 1989. Over the years they've created many software and hardware products which help users locate the problem with their Macintosh. This article discusses TechTool Pro.

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TechTool™ Pro mini review

by Tom Witte



Who: Any Mac user. Mostly, one with lots of machines.

What: Software that check hardware.

Where: Runs on Mac it is testing.

When: Use to verify or find hardware problems/failure.

Why: Help eliminate possible source for problems.

TechTool™ Pro

Your Mac is not working right, a call to a Hotline helper help you sort through the usual (see sidebar this page). After your third fresh reinstall of system software and all programs fails to eliminate a problem, you are beginning to think maybe your hardware may be failing you. What do you do?

You know a trip to an Apple repairman is expensive and even a trip to Lorin's Tuesday night help sessions at the WAP office means tearing down your system and moving it across town. Is there another option?

A run thought the TCS file are will reveal some Freeware program that might help—GURU will check RAM, SCSIProble will find some SCSI termination problems and other programs might find a problem with a level 2 cache. Or you might use KEY Caps to check operation of your keyboards keys. And you might try swapping your modem to the printer port but there has to be a better way.

There is—TechTool™ Pro brought to you by MicroMat, the same people that make that wonderful freeware program TECHTOOL, which is so useful for rebuilding the Finder's desktop files and Zapping the P Ram. Here is what it offers (see sidebsr).

According to MicroMat,

“TechTool Pro is now the most powerful and comprehensive Macintosh problem-solving product on the market. It can scan, detect, analyze and identify over 300 software and hardware problems, including over 30 that are not addressed by any other Macintosh utility.

TechTool Pro allows users to test their computers like a professional would, without the need for years of experience or a computer degree. The user can test the effectiveness of new equipment, verify system configurations, check the integrity of crucial System software and enablers, make sure that the machine is running its fastest, and reveal the hidden culprits that cause the computer to slow, freeze or crash.

TechTool Pro's offers:

- Automatic or Manual Operation

Featuring an attractive, intuitive user interface that requires no previous technical knowledge, TechTool Pro will benefit every type of user from novice to power user or technical professional. It works fast to detect and diagnose gradual, intermittent, or sudden performance degradation. An automatic “Auto Pilot” mode allows users to run a full battery of tests completely unattended. Users can also manually select and run over 300 individual tests. “It's the best all-around testing application that I ever used,” commented beta tester and Network Project Coordinator Richard S. Thompson of Providence, Rhode Island. “The completeness is amazing. If there is anything wrong with a Mac, TechTool Pro will find it.”

- Reporting and Advice Features Speed Solutions

TechTool Pro's reports can be viewed on-screen or printed by a choice of five different views: by test results, by an extensively detailed system configuration, by expansion board information, by hard drive volume information, or by all of the above.

If the problems detected are such that they cannot be automatically fixed by TechTool Pro, then the program offers a variety of fix-it tips via a bright red Advice button. When selected, the Advice button opens a window presenting written, what-to-do solutions to correct or repair the situation. If preferred, the corrective advice can also be printed in an attractive and informative multi-page diagnostic report for later review and study.

TechTool Pro is unique among Macintosh troubleshooting utilities in that competing products merely indicate that a specific problem exists without any explanation of the



significance of that problem, and without telling the user how to go about fixing it. "It's the first application I've come across that makes a thorough attempt at testing the computer as a whole, instead of just focussing on a specific area," says Systems Manager and Publishing Systems Coordinator Atreyu Svoren, a TechTool Pro beta tester in Winnipeg, Manitoba, Canada. "Considering the wide variety of Macs I have to keep up with in my job, TechTool Pro proves to be most useful in this regard. The interface is a delight to use. I particularly appreciate the flexibility in organizing the tests I wish to run automatically, thereby giving me the time I need to attend my other duties."

- Performance Benchmarks

In addition to valuable diagnostic tests TechTool Pro also provides valuable benchmark tests that rate a computer's speed performance. Most users desire to know exactly how fast their Macintosh runs. TechTool Pro's benchmark tests help the user determine a machine's computational speed and then render the results in an easy-to-understand numerical format. The user can then compare the results of each Benchmark Test to tell whether—and by how much—a Macintosh has increased or decreased overall computer speed. This information is necessary for both users and technical professionals. For example, after the user has purchased and installed a new piece of hardware or software, benchmark testing can tell what, if any, actual performance changes resulted from the installation. The results of upgrading, customizing, equipment removal and repair efforts can also be measured with hard evidence.

Benchmark tests are popular with Macintosh owners and system administrators in their efforts to tweak maximum performance from each machine. Running these tests with TechTool Pro each time the user reconfigures a Macintosh with new or different software or hardware will provide an objective (and reassuring) way to balance the subjective 'hopes' of the user with the 'hypes' of manufacturers.

TechTool Pro utilizes five industry-standard benchmark tests. The Whetstone test determines mathematical processing speed using floating-point integer calculations. The Dhrystone Test analyzes string operations speed. A Cycle test calculates the number of event loops processed per second (this test will show users precisely how much each new extension installed affects performance, enabling the user to decide whether the extension's benefits are worth the decrease in overall speed). The Sieve test reveals actual mathematical processing speed by calculating prime numbers. And finally, the Sort Test calculates the time necessary to sort a complex data array.

- System Requirements, Pricing and Availability

TechTool Pro requires a Macintosh Plus or above, System software version 7.0 or better, a hard disk drive, and a minimum of 4 megabytes of RAM. It is PowerPC native and works with the latest Macintosh models including clones.

So what does that mean?

It means if your Mac will not start, it is of no use. If you Mac is running fine, why do you need it? Well there are times when you get random problems and the standard actions don't work. Then running TTP can help you find the cause. Also, if you are buying a used Mac it is a quick way to ensure you're not getting a pig from the poke. ■



QuicKeys 3.5

Reviewed by Herbert Block

IN 1990 I bought my first Mac. It was a Mac Plus and it came with *MacWrite* for word processing. As a person new to computers and not a trained typist, I readily learned to use the mouse for all of my special editing alterations such as copy, paste undo, etc. A friend who also had a Mac Plus, but who was a trained typist told me about the program *QuicKeys* he had purchased and how it had improved the speed with which he could accomplish his work. People who are accustomed to using the keyboard naturally seek means which will permit them to concentrate on the tasks before them, rather than lifting their hands to work the mouse. It was for those people who are comfortable with the keyboard, that over the years work saving "shortcuts" have been designed and added to computer applications and programs.

A shortcut is a combination of specified keyboard strokes designed to automatically bring about the desired action. The action may be a simple one, such as P to call up the printer, or a sequence of actions, for example to insert a preformed body of a letter. The simple ones such as

C for copy, V for paste were available early on. To accomplish a sequence of actions, Macros were developed. Today, most applications have incorporated into their programs a great variety of shortcuts and aids, for example: templates, scripts, and "assistants." The major word processing applications, *ClarisWorks*, *WordPerfect* and *Microsoft Word*, each has over pre-

pared 75 shortcuts. The "Ruler" at the head of a document ready to be typed now has an array of buttons and tabs often running along the left margin as well as on top each with its own special shortcut. A person who aspires to be a rapid typist needs to learn a number of these specialty shortcuts for the application used the most.

In addition to the shortcuts incorporated in application programs, over the years the Macintosh operating system, with each enhancement, has made available a number of special features to speed and ease operations. For example:

Aliases: A handy way to quickly reach a program or a specific file. Some Mac users like to keep their most used aliases available by strategically placing them on the edges of the computer's Finder screen.

Menu Choice: Using this, a person can cascade via the mouse, through a hierarchy of folders, and sub folders, to reach down to a specific letter or file.

"Menu. On the left side of the Finder screen one can place a number of specialized helps, either in their original form or as their aliases.

Launcher: Although originally part of the Performa series of Macintosh, it has been available in System 7.5 and later for most systems. Placing a program or specific file onto the Launcher is simply through "drag and drop." A particular advantage of the Launcher is that an action opens with a single click .

With all these shortcuts and easy use items available at your finger tips, I was eager to learn what did the latest *QuicKeys* 3.5 have to offer. Why would a person spend \$119.00 to buy the program? What work saving enhancements would *QuicKeys* provide?

QuicKeys—The Manual. The Manual consists of 5 Chapters. The discussion, below deals with Chapters 2,3, 4 and 5.

Chapter 2. Installing and Upgrading

The installation process follows the usual procedure. After the installation was completed I hunted for the program's folder on the Hard Disk. I even installed it a second time. Eventually I found the Application. It was located on the upper right hand corner of the Finder screen. That location is reserved for applications which must be accessed frequently. Why *QuicKeys*?

As expected the installation placed items in the Control Panel and in the Extensions folder of the Systems Folder. The surprise, however was the placement in the Preference Folder of the *QuicKeys* Extension containing 46 items using 2.1 MB's of space. Included was the "Extension Manager." More will be said about the *QuicKeys* Extension Manager later in this review. Also, the installation placed a *QuicKeys* Accessories folder on the hard drive, as though that folder contained some after thoughts rather than integral part of the program as I would later learn.

Chapter 3: A Quick Tour of QuicKeys

This manual takes an unusual approach. Typically the Glossary, or its equivalent is found at the end of a manual. Here, in the opening pages, the manual combines a glossary of terms with sample actions.



Its a technique that attempts to combine explanation of terms with a little learning. After a number of frustrating hours with the manual, I sent a series of questions, via E-Mail (in the lack of an 800 number) to Tech Support at CE Software, with a series of questions. In the reply I learned what was not first explicit in the manual. Certain preliminary steps must be taken such as configuring certain features, knowing where to find things such as the shortcut list, etc. In addition in the answer I learned that the manual was written and issued despite the fact that programming changes were being made, and that the current program is not "native" for Power PC. As a result, the manual and the program on the screen did not always match.

On page 10 there is a short paragraph headed "Extension Manager." The paragraph reads as follows: "Much of QuicKeys power comes from its extensions. When you download extensions from your favorite on-line service, you can use the Extension Manager to add them to QuicKeys. You can also use the Extension Manager to turn off unused extensions to save memory." That is all that is said about the Extension Manager in the entire manual. I opened it and saw an array of thirty items together with a list of possible actions to be taken. But none of the items looked familiar to me, e.g. Go Sub, Jump, Mounty, Decision.

Chapter 4. Tutorial

The manual contains a Tutorial which details some shortcut examples. During the course of working and evaluating the *QuicKeys* program I was able to bring into play a few shortcuts, but more frequently I ended up in a dead end. I wondered whether it was worth the time and effort to go through the various steps to produce a shortcut. Here are a few examples:

1. The tutorial lays out steps on the preparation to use one of the 12 "Mousie" shortcuts to manipulate windows: close window, zoom window, home, end, etc. Some of these keyboard shortcuts are readily available on the extended key board

"People who are accustomed to using the keyboard naturally seek means which will permit them to concentrate on the tasks before them, rather than lifting their hands to work the mouse. It was for those people who are comfortable with the keyboard, that over the years work saving 'shortcuts' have been designed and added to computer applications and programs."

(which now is equipped with every new Macintosh), such as Home, End, Page up, etc. A few such as Zoom Window have to be programmed-but are they worth the effort? Are the adaptation of the few "Mousies" worth the investment of time and money?

2. Another example is "Toggle Balloon Help." The tutorial steps do produce a key stroke pattern that will open that shortcut. But is it not equally as easy to simply reach up with the mouse to the ? icon in the upper right corner of the Finder and bring Balloon Help into play?

3. Page 50, Copy to Scrapbook. This really got me . Four pages detailing 15 steps for the simple process of copying to the scrapbook. I could see that it would take about an hour, and that providing I did not encounter items to use which are dimmed or even not available.

Chapter 5: Shortcuts to Productivity

This short chapter contains some interesting approaches for quick access such as "Automatic Typist," a way of bring to play some repetitive text. However, some items such as fast access to applications and documents can just as easily be reached through the use of aliases and menu bars. Of course that means accessing via a mouse click rather than key strokes- a matter of personal preference.

I have put in multiple hours studying the manual and installing some of the shortcuts. I kept running into missing steps, dimmed out items, or the item is not found. Sometimes after I had selected a key to be used I received the comeback that that key has already been used by one of the "canned" shortcuts I could not find.

There is a HELP (?) item located in the right hand corner when the *QuicKeys* application is open. Calling on HELP provides some assistance towards understanding an action. But why can't there be one source for full information and assistance to get a job done quickly and easily? Why can't the Manual and this inner HELP be combined into a readable and tested Manual?

As can readily be discerned, I have not been favorably impressed with *QuicKeys*. Even if the errors and omissions discussed above had not occurred, I fail to see the investment of time and patience incurred to use key strokes (often requiring to simultaneously use as many as three keys) to be superior to use a



mouse click.

There must be more to *QuicKeys* than I have been able to glean in my study and use. For me, CE Software failed to really explain how to use *QuicKeys* effectively. Thus, page 3 recommends that an interested person ought to seek help from separate publications, for example: *The QuicKeys 3.0 Book*, Addison and Wesley. Of course that means an additional expenditure of \$22.95. *QuicKeys* does not have an 800 number for tech support.

I can not recommend the purchase of *QuicKeys* at \$119.00 (\$99. Mail Order). Another program essentially as good as *QuicKeys* is **Key Quencher**. I downloaded a copy of *Key Quencher Lite* from the Washington Apple Pi bulletin board. After a period of use, I found *Key Quencher* not only equal to *QuicKeys* but substantially easier to use. *Key Quencher* is sold as *Key Quencher Lite* for \$20.00, and the complete version for \$39.95. *Key Quencher* requires less RAM and is native on Power PC-based systems.

A simple key based system, found on our bulletin board is **FKEY MASTER**. It is a system that utilizes the F Keys on the extended key board. *FKEY MASTER* is shareware and costs \$15 for those interested in its use. ■

QuicKeys 3.5

CE Software, INC.
P.O. Box 65580
1801 Industrial Blvd.
West Des Moines, IA 50265

Key Quencher

Binary Software, Inc.
2118 Wilshire Blvd. 900
Santa Monica, CA 90403

FKEY MASTER

Adam Stein, Insanely
Great Software
125 Calvert Ave. E
Edison, N.J. 08820

3D Landscape

reviewed by Mary Keene

WHEN I CHOSE this Application, I had two agendas:

1. Creating on "paper" some alternate plans for my own gardens, which have problem situations, and finding better solutions to these problems without the expense, time and hard physical work required by the trial and error methods.
2. As a member of the Board of Directors for my Home Owner's Association, I wanted to replicate problem areas in our community and design some plans that could be used for competitive cost comparison bids.

Initially it looked like this application was going to be exactly what I needed for both agendas. I opened the program using one of the sample landscapes supplied to get an idea of what the application contained and how it was set up. I was delighted with what I found in the sample. There was a lot of complex detail and the graphic resolution was pretty good considering the complexity of the sample landscape. (Fig. 1, 2)

I spent quite a bit of time mousing around exploring nooks and crannies. There were many delightful "little" details that caught my eye, a cat in the back yard, a se-

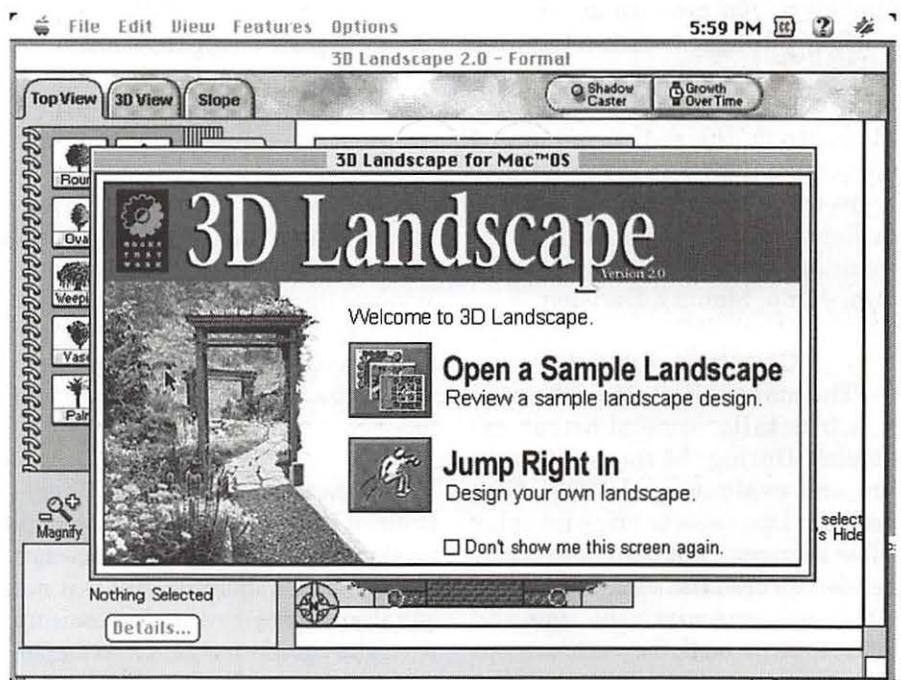


Fig.01 Quantum HD:Desktop Folder:3D Landscape:3D screen shots

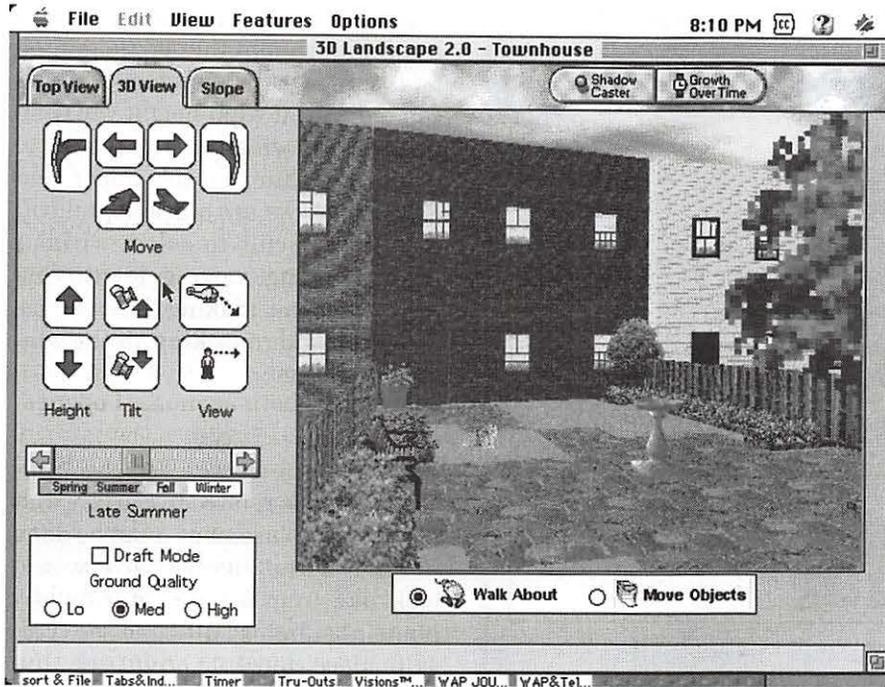


Fig.02 Quantum HD:Desktop Folder:3D Landscape:3D screen shots

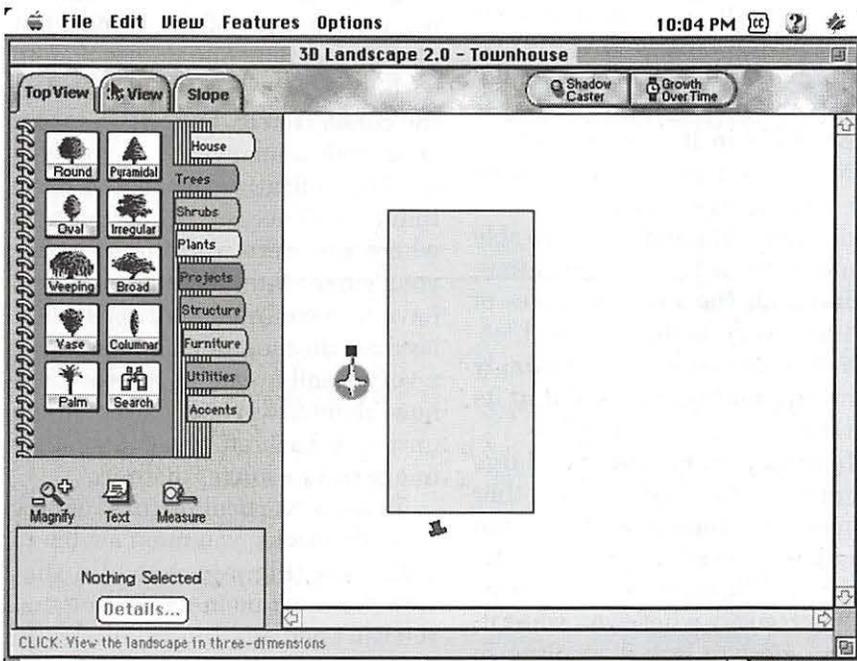


Fig.03 Quantum HD:Desktop Folder:3D Landscape:3D screen shots

cluded area with a picnic table, etc. I investigated all the menu bar commands, and the different options listed in the “spiral notebook” for inclusion in the landscape. Many details were available for selection in-

cluding various types of walkway lighting, outdoor furniture, cats, dogs, birdbaths, compost bins, hoses, etc., in addition to the landscape plant materials. There was also a slope table that could be used to in-

dicating slope gradients and contoured areas. They even included a Townhouse landscape (which is what I have) in the sample folder.

So I plunged in and began to create. At first I used the Townhouse provided as a base to work with and simply removed the items I did not have or wouldn't need so I could customize the plan to be more consistent with my garden. As I stripped out the extras, I marveled at the number of items contained in the plan—many edging strips, plant borders, bricked in areas, etc. I then tried adding the elements I would be working with. I had some difficulty getting things placed where I wanted them to go.

I discovered that I could actually draw or scale items to the “exact” size I would be working with to get a better plan that reflected a more precise relativity. At first I used a provided sample, but soon decided to start from scratch. I thought that would be easier than trying to remodel the sample since I was having trouble with the “size handles”. (Fig. 3)

Each element had at least four (usually more) “handles” to use when altering items. The extra handles permit rounding and contouring as well as sizing. There were two cursor styles associated with these handles, one—a hand—would enlarge or reduce, the other—an arrow—would change the area covered by that specific handle to more complex shapes.

The “cursor change” point (from geometric to complex) was a very narrow spot and both cursors lived in that same spot. I would select the handle I needed and begin re-sizing only to find I was using the distort versus the size cursor. That's when I discovered the really bad feature, in my opinion, of this software—NO UNDO COMMAND! Trying to reverse what had been done usually created some other freakish shape.

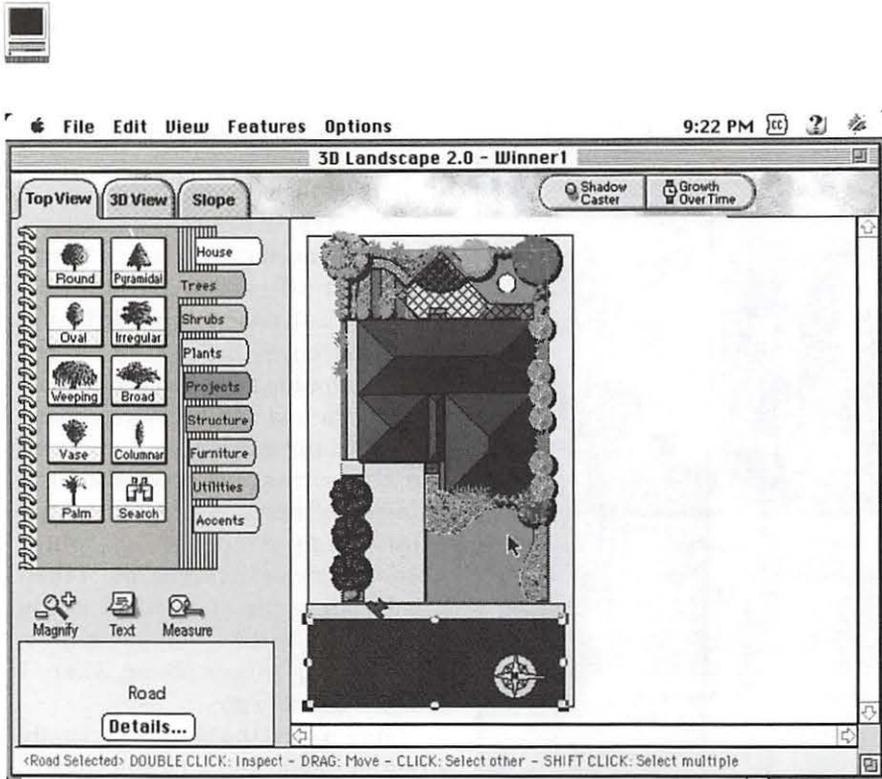


Fig. 4 3D Landscape:3D screen shots

Saving frequently seemed to be the only real solution. OK, I can do that, no problem.

I next discovered the independent tape measure that can be used to measure objects precisely. (A built-in tape measure automatically pops up when you finally get the correct cursor.) That mastered I moved on and learned how to add details to my landscape which is where I ran headlong into the “layer” problem.

Layers

Obviously to create the illusion of depth and three dimensionality, layers must be used (both artistic and computer layers). There are two basic types of computer layers in graphic applications:

1. Layers created on what appear to be a series of “transparent overlays”. These layers can be placed in the order that best displays each element. Their placement can be switched to test out the order that best illustrates the data.
2. Layers are stacked and fixed on top of each other in the order

of creation. This method does not permit rearranging the layers for optimal effect. The designer must create each layer precisely in its required order. Mistakes require everything be redrawn versus shuffled.

Somehow, 3D Landscape was able to muddle these two types together, retaining all the worst features of each and very little of their best. Each element is placed in seemingly haphazard manner and fixed in its position.

Many “boundary” boxes are large enough that they encroach on other elements and you must remove the offending element to access the desired item. When you get an element placed precisely where you want it, you can elect to lock it in place so you do not accidentally dislodge or misplace it when working with subsequent elements.

You will have to carefully disassemble everything to gain access to the item you want changed. In the case of windows (house windows, not Windoze—that comes later), it becomes trickier. If you’re working on

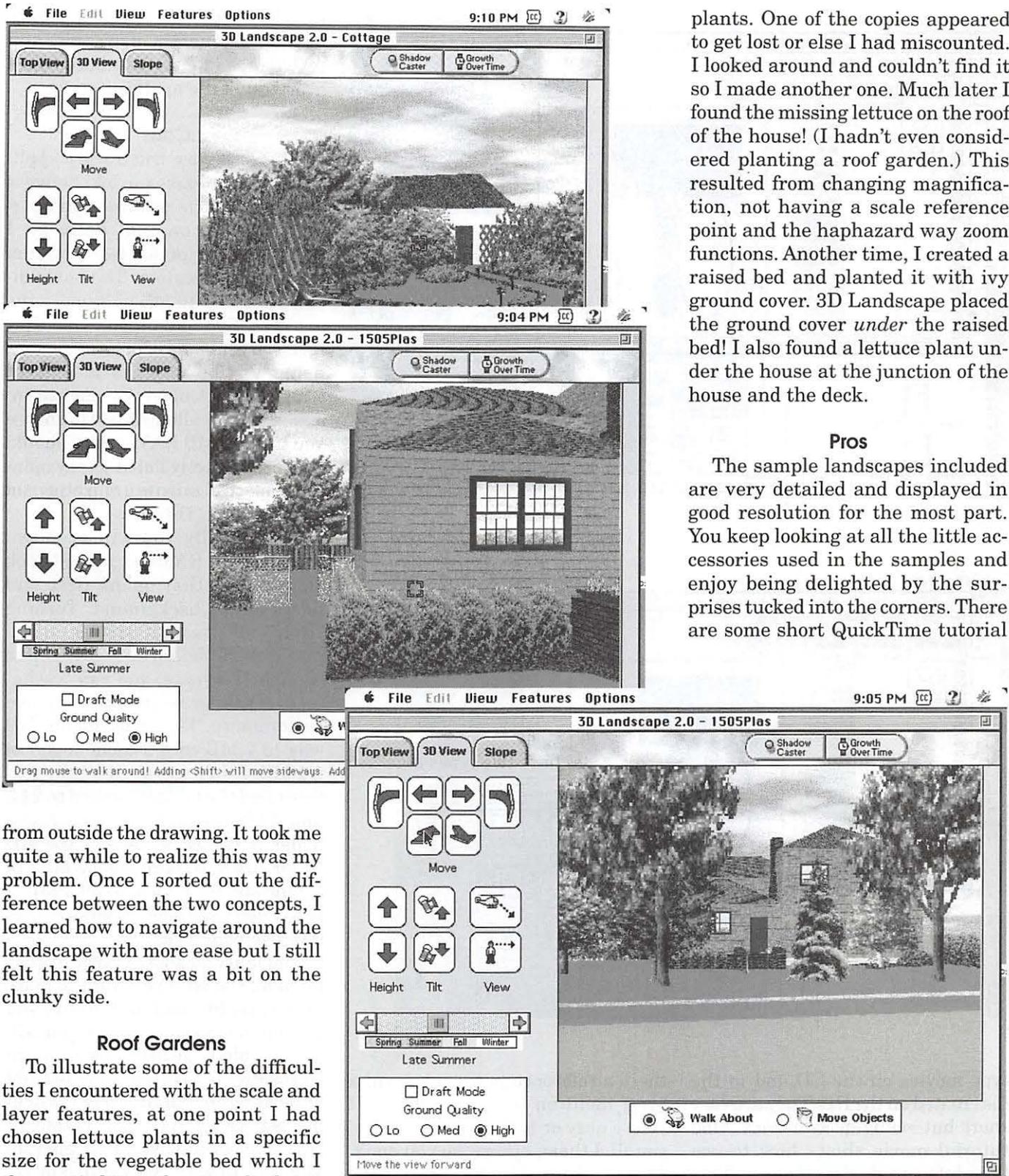
a 2 story house, 3D Landscape has a specific element that is designated as a second story window and you can indicate at what height you wish to place the window. If you need to make any changes, the upper and lower windows are stacked and will be very difficult to select without first unlocking, moving, identifying the correct one, making the changes, replacing and re-locking all the window positions.

Scale

Part of the reason for the “nuisance level” is related to the fact that all element placement must be done in a flat aerial view (what it would look like from a helicopter or airplane at standard altitude see (Fig. 4) To place elements accurately, the SW suggests that you zoom in or out to facilitate positioning. However, magnifying (zooming in) changes, not just the size of the layout, but also its location. You do not end up with a larger view of your object at the cursor. You end up with a larger view (scale is an invisible factor fixed by the application not by the user) that doesn’t necessarily correlate to where you were working or where your cursor was. Additionally, you have to zoom in and out constantly because the magnified image shows a very small area and you can’t see how elements relate to the whole until you back off to see a smaller image from a longer distance.

To see a “vertical picture” of how your plan looks, you must switch to a 3D view (Fig. 5 a, b, c.). In that view you can’t do much editing and you can’t add anything at all. Walking around your landscape, moving in closer, walking out farther and moving items around are the only options in 3D view.

I found myself confusing the concepts of 3D and Virtual Reality. I wanted to have the holographic experience of being able to fluidly explore the landscape from within and



from outside the drawing. It took me quite a while to realize this was my problem. Once I sorted out the difference between the two concepts, I learned how to navigate around the landscape with more ease but I still felt this feature was a bit on the clunky side.

Roof Gardens

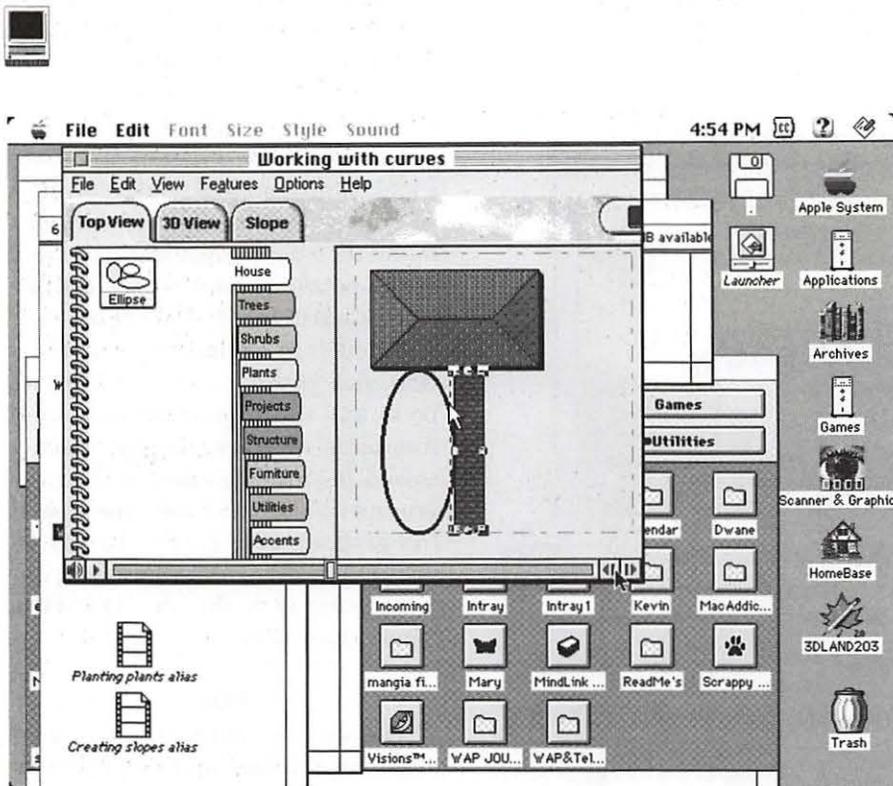
To illustrate some of the difficulties I encountered with the scale and layer features, at one point I had chosen lettuce plants in a specific size for the vegetable bed which I then copied to make enough plants for that area. In the process, I had to zoom in and out to place the

plants. One of the copies appeared to get lost or else I had miscounted. I looked around and couldn't find it so I made another one. Much later I found the missing lettuce on the roof of the house! (I hadn't even considered planting a roof garden.) This resulted from changing magnification, not having a scale reference point and the haphazard way zoom functions. Another time, I created a raised bed and planted it with ivy ground cover. 3D Landscape placed the ground cover *under* the raised bed! I also found a lettuce plant under the house at the junction of the house and the deck.

Pros

The sample landscapes included are very detailed and displayed in good resolution for the most part. You keep looking at all the little accessories used in the samples and enjoy being delighted by the surprises tucked into the corners. There are some short QuickTime tutorial

Fig.5a-c : 3D view of Cottage sample landscape, 3D view of Split level sample landscape, 3D view of Modern 2 story sample landscape



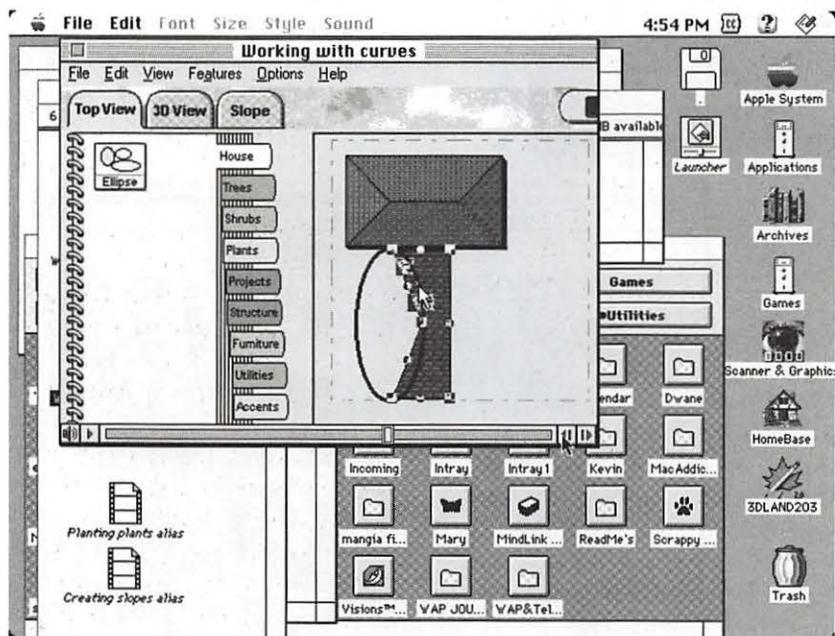
ered in the brochure. The brochure uses a combination of graphics and text to give a complete bare bones overview of the application.

Cons

This is a very frustrating application. It promises a lot, delivers about 50% of its promises and performs poorly on that delivery. I would frankly prefer less program and better execution. The box indicates it needs 16 MB of Ram. In the enclosed Readme on the CD, they give you all kinds of suggestions for using Virtual Memory and other tricks (RamDoublor for one) to increase your available RAM to ensure you have 16 MB RAM, which should be more correctly listed, in my opinion, as the *minimum* required amount. (Fig. 7)

Additionally you will need another 1.7 MB RAM to run the Quick Help Guide that opens first and floats in the background. Turning "Help" off does not appear to improve performance. If you have enough HD space, you can "cache" texture files on your HD to improve performance. The folder on my HD was 13.2 MB with a cache folder of 1.1 MB. I then installed all the textures and the folders swelled to 24.8 and 12.7 respectively. The cache folder is nested so 24.8 is the HD folder size and there are 5.5 MB's of extensions for a total of 30.3 MB. I really don't see a lot of performance improvement. (Fig. 8)

You must be able to carry in your mind all the stuff you want to place in the graphic (and all the stuff you already put there) because you will not be able to see the results until you change to 3D view. You can't add or delete items in 3D view. Switching between aerial and 3D images is so memory intensive that you rapidly end up with fragmented or insufficient RAM. 3D Landscape does itself a serious disadvantage by listing options that are "available" if



type movies on the CD and in the file created on the HD. They are very short but really good movies. One tutorial movie shows how to use templates to design shapes. This movie has excellent tips that can be used in all graphic applications. (Fig. 6a, b, c) Strangely, no where is

there a reference to them beyond a brief mention in the ReadMe. If you're nosy or have a good memory, you find them; otherwise you don't. The brochure is very simple yet quite clear, however, by poking in corners and experimenting, I had managed to intuit everything cov-

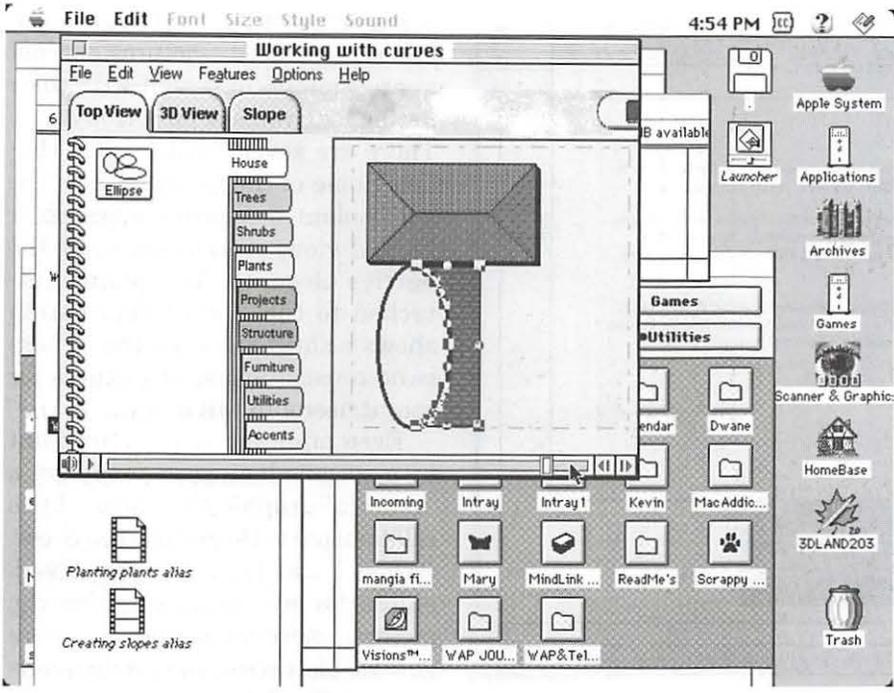


Fig. 6a-c 3D screen shots: Curve demo from tutorial movie (see page 66 for a & b)

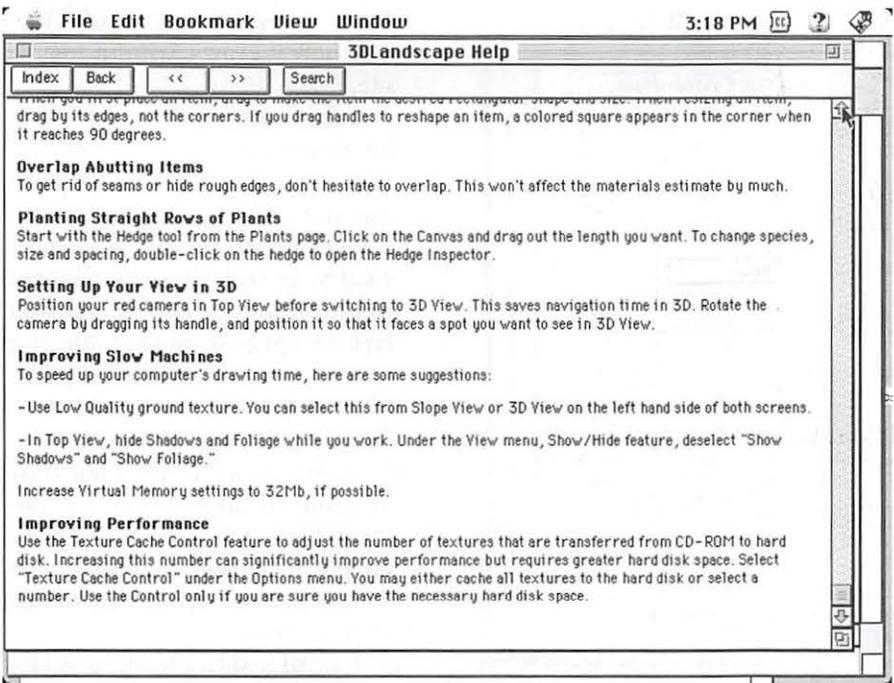


Fig. 7 Help screen: improving performance

you have enough eye of newt in your pantry. On computers that have 40MB+ RAM some of these things might be possible or less difficult but

based on my previous experience with other software and similar problems, 3D Landscape seems overly ambitious or underdeveloped.

I don't think more RAM would completely solve these problems.

The documentation claims the plant data base has 2000+ entries. Initially, it appeared that was correct. However, more careful analysis indicates this figure is subject to interpretation. While there may, in fact, be 2000+ entries, there ARE NOT 2000+ unique entries. Many items are listed in 3 or 4 different ways using the same data in the duplicate entries. In effect, many entries have cloned data or the data has cloned entries. (Fig. 9, 10, 11)

After a session with 3D Landscape, I feel like I have spent that time in my garden physically moving these heavy objects around because of the intense human RAM requirements this application demands. I am almost more exhausted than if I had gone out and hauled stuff around in the yard, in and out of the car, to and from the nursery or building supply store.

Mysteries

As usual, I thought this was attributed to my computer graphic skills or lack thereof. Then the April edition of MacWorld arrived and with it came a crucial piece of missing information. In their review of 3D Landscape, MacWorld explains that this application was written for PC's and ported over to Mac but it still has quirks from its windows heritage. No wonder I felt like I was hauling and dragging heavy recalcitrant stuff around—I was! (Windoze and Microsoft.)

There is still one mystery whose solution completely eludes me. There is a folder on the CD which contains backgrounds but I can't find any documentation about them or how to apply them.

Summary

I think the underlying concept of this application is sound. They have done a good job of making provisions

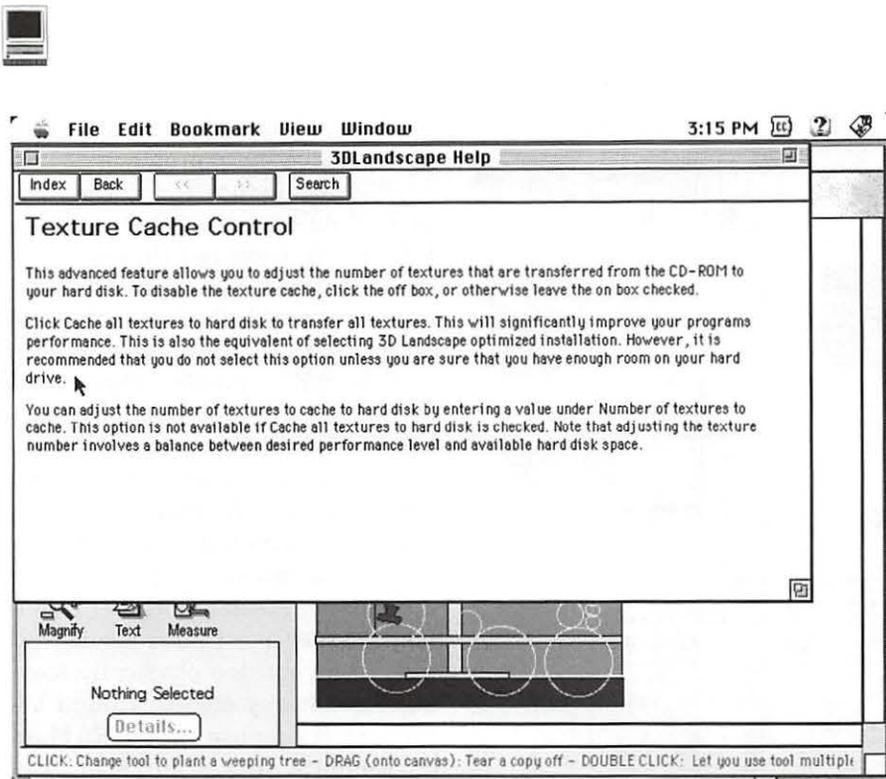


Fig. 8 Help screen: Texture cache control

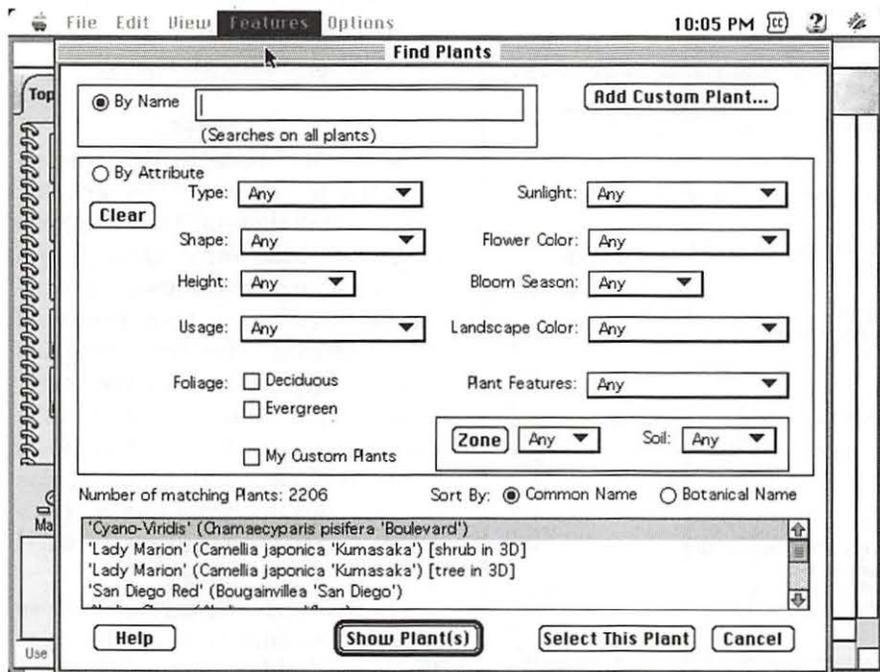


Fig. 9 Plant Selector window Plant Database

for many features a user would like in this kind of software. They should be reminded Macs don't need to work this hard to deliver results. There are so many areas where the

lack of attention shows—numerous misspellings of common words that a word processor would catch if one had been used.

Many of the entries have no pic-

tures or use the same picture another plant used. Pictures are not appropriately consistent with their listing, i.e., you ask for a Holly tree. There are several listings for Hollies. Some of the pictures show the whole plant, some show a branch or limited view, others may show the berries close-up. The picture attached to the Holly (tree) listing shows a shrub versus a tree. There is no consistent use of pictures for comparison purposes.

Even after you select your plant by a specific listing, you may get a "generic" graphic that bears little relationship to the picture you chose. (When I was trying to select vegetables for my vegetable garden, the pictures more often than not were generic pictures of the produce versus specific pictures of the growing characteristics. I know what the vegetables look like. I want to I know what the plant looks like and how it grows, what it needs, etc.)

I think the application would be improved, if instead of trying to cover a huge database inadequately, the authors had used a more accurate, limited if necessary, generic base of general plant shapes with a suggested list of specific plants having those general characteristics. That way, the user could do a shape landscape showing compass orientation and take that printout to the nursery for specific help from the nursery people in choosing plants that would provide that look or fill that purpose.

I would also like to see the "shadow caster" developed more. Instead of racing around a 24 hour clock, let the user choose the time at which shadows are simulated instead of using automatic animation. Animation of shadows should be an option not a requirement (at least put speed options on

it). Being able to see the shadows based on time of day and date is a very important part of planning a successful garden.

My System

PMac 6100, 24 MB RAM, 350 MB internal HD, 2.1 GB external HD, 2x CD ROM, System7.5.5. I tried using only the "16 MB of required RAM", using 1 MB of VM and using the suggested mix of RAM and VM. Most problems were consistent in all modes. Using VM at 32 MB I could use higher resolutions sometimes, however 3D Landscape would precede the higher resolutions with an "insufficient RAM" message before giving access to that resolution.

Requirements

Macintosh PowerPC (sic) or compatible running Mac OS 7.1.2 or higher, 16 MB RAM, 12 MB free HD space, 256 colors or higher, CD ROM 2x or higher.

Support

Tech support is a toll call. There is an email address and web site address provided. I did not test either of these. ■

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Fig.10 D Landscape:3D screen shots: Blue Spruce Plant Database



Figure 12: D screen shots: Florist Azalea Plant Database

Internet Books for Teachers

taken from the **Internet**
Edited a tad by **Dave Ottalini**

Bibliography

BELOW IS a list of books related to education and the Internet. The last two books in the list are general HTML reference books that may be of interest to more advanced Internet educators.

NetLearning: Why Teachers Use the Internet

Ferdi Serim and Melissa Koch
Songline Studios and O'Reilly & Associates
Copyright 1996
ISBN: 1-56592-201-8

This is an excellent book written by two educators who were early adopters of the Internet. They have collected stories from many teachers around the US about using the Internet in the classroom. This book contains a wealth of ideas and also many interesting Internet addresses and e-mail addresses.

The Internet for Teachers

Bard William
IDG Books Worldwide, Inc.
Copyright 1995
ISBN: 1-56884-600-2

This book, written by a former teacher, provides an easy-to-understand introduction to an array of Internet topics. It features lots of ideas for classroom activities, as well as many web sites, news groups, and e-mail addresses of interest to educators.

Educator's Internet Companion

Gregory Giagnocavo, Tim McLain, Vince DiStefano, Chris Noonan
Sturm
Wentworth Worldwide Media, Inc.
Copyright 1996
ISBN: 0-13-569484-1

This book includes sample lesson plans that include an Internet component as well as some excellent lists of resources including news groups, mailing lists, and web sites. The annotated list of "Top 50 Educational Web Sites" provides some excellent starting points for browsing the Web.

Learning Networks: A Field Guide to Teaching and Learning Online

Linda M. Harasim, Roxanne Hiltz, Lucio Teles, and Murray Turoff
MIT Press
Copyright 1995. ISBN: 0-262-08236

Learning Networks is aimed at educators at all levels, from primary to adult education. Part I provides a selective survey of the field: what are learning networks and who is using them, what kind of courses can be taught online, what approaches to teaching and learning are most successful online, what curriculum can best be supported by networking, and what kinds of teachers and learners benefit from this medium. Part II deals with the design and implementation of learning networks as well as the roles of teachers and learners and gives a realistic assessment of potential pitfalls. In Part III the authors discuss

network technologies as a paradigm for education in the next century.

Educator's Internet Yellow Pages

Ron Place, Laus Dimmler, Thomas Powell
Prentis Hall PTR
Copyright 1996
ISBN: 0-13-232356-7

This book offers an annotated list (over 300 pages long) of web sites, news groups, and mailing lists of interest to educators. This list is organized by curriculum area.

The Internet Kids Yellow Pages

Jean Armour Polly
Osborne McGraw-Hill
Copyright 1996
ISBN: 0-07-882197-5

This yellow-page style guide offers a list of annotated web sites organized by topic. The annotations are lengthier than in the yellow pages guide above, but includes only web sites and not news groups or mailing lists. A related web site contains links to 50 Internet experiences for kids.

Computers in the Classroom: How Teachers and Students are Using Technology to Transform Learning

Andrea R. Gooden
Jossey-Bass and Apple Publication
Copyright 1996
ISBN: 0-7879-0262-4

This book describes approaches to using technology (not just the Internet) in the classroom. The book is comprised of stories of six schools' experiences introducing technology into the classroom. It provides examples of student work as well as a resource guide with information on funding sources, technical support, software, and where to find material on the Internet.

Computers and Classroom Culture

Janet Ward Schofield
Cambridge University Press
Copyright 1995

ISBN: 0-521-47924-X

This book describes a study of computer technology in 30 different classrooms. The data for the study includes interviews with 24 teachers and 250 students. The author looks at the importance of social context and organizational barriers. She also discusses gender differences and offers some ideas on how to improve the educational use of computers.

Teach Yourself Web Publishing with HTML

Laura Lemay
Sams Publishing
Copyright 1995
ISBN: 1-57521-005-3

More Teach Yourself Web Publishing with HTML

Laura Lemay
Sams Publishing

Copyright 1995
ISBN: 0-672-30667-0

This two-book series (which can be purchased separately or as a set) contains a relatively easy-to-understand introduction to the Hypertext Markup Language (HTML). ■

Training Your Golden Retriever to Retrieve Email

HAVE YOU ALWAYS wanted to train your golden retriever to retrieve your email for you? Well, if you follow a



careful training program, your golden retriever will be retrieving email for you in no time at all. This breed of dogs naturally seeks to retrieve things. It's in their blood. So it's just a matter of teaching your retriever to do what comes naturally to have him help you get your email.

For best results start your training when your dog is very young. After your dog has become accustomed to retrieving sticks and tennis balls you might try hurling an old keyboard once in a while. When your dog brings your keyboard back to you, scratch your pooch behind his ear while saying, "Good dog. Thatta boy. Good dog."

Place the keyboard at your feet and encourage your dog to randomly paw keys on the keyboard. Lavish praise on your pooch when he hits keys that are close to the keys you use to retrieve your mail.

Reward your dog with tasty treats only when he starts showing an interest in how your email program works. Golden retrievers are naturally intelligent dogs. If they see

you sitting at the computer they are bound to become curious about what steps you take to retrieve your email.

Then one day when your dog is very comfortable at pawing your keyboard and has familiarized himself with all the keystrokes you use to retrieve your mail, say in a friendly frisky voice: "Go get email. That's a good dog. Go fetch email."

You might be surprised to see how easily your dog will retrieve your email. But don't forget that golden retrievers were bred to do this sort of thing. It's one of their instincts to log on, grab all new messages, and log off.

Once your golden retriever masters the process of retrieving your email, this activity will be one more way for you to bond with your dog. Don't be surprised if your dog bounds onto your bed early in the morning begging you to switch on the computer so he can retrieve email.

That's the point you will know to give your dog his own email account. That way you can sleep later in the morning while your pooch is enthusiastically bounding around retrieving email on his own. ■

—Phil Shapiro
pshapiro@his.com
<http://www.his.com/~pshapiro/>



Review: Intuit's QuickBooks

by John Fazzino with Paul Gerstenbluth

Available from: Intuit, 2650 E. Elvira, Suite 100, Tucson, A. 85706 (Call 1-800-544-1356 and ask for user group discount)

I WAS DRAWN to Intuit's QuickBooks since I needed help. Financial records, a business plan and marketing program were all ways difficult tasks for me. I'm a landscape gardener, not a business person, so I don't know much about business, bookkeeping, or marketing.

I started my business three years ago, Q Gardens, a small garden design and landscaping business. I started out on my own with a lot of experience, but very little capital. I decided to use my personal Quicken program to set up my business finances which wasn't much, just a checking account.

I was drawn to QuickBooks because I already had Quicken and would be able to transfer data easily. QuickBooks Pro would enable me to create estimates, time track by job and employee, and compare estimated with actual job costs.

The program would also let me create invoices, purchase orders and keep track of customers and vendors. Also, it would let me print reports and graphs as well as other business related activities.

I thought I would use QuickBooks before tax time. I have a Performa 410, upgraded with 10 Megs of Ram and RamDoubler 2.0 installed. I opted for QuickBooks Pro 3.1 which met my computer requirements.

Well, I had just upgraded my Quicken program to version 7.0, and to make matters worse, I had

thrown out my old Quicken 5 data file, thinking I would never need it again. Now what do I do? I got on the phone with Intuit and on-line as well, and after several back and forth messages I was able to translate my data file backwards from Quicken 7 to Quicken 5 and then import it to QuickBooks.

First I exported the account from Quicken 7 to the desktop. It was then to be opened in Simple Text. I discovered that my data file was too large to open in Simple Text, since it contained one year of transactions.

I had to go back and export half a year at a time. The first 7 lines of text were deleted as per instructions and then saved. I then had to reinstall Quicken 5, set up an account identical to the one in Quicken 7 and begin importing. Success, after only about 2 weeks. Then I was able to import my data to QuickBooks.

Now what do I do with it, I asked myself. I almost always read the Read Me files for new software and I've even been known to read some of the manuals. But this hummer came with 4 different manuals.

Can a Landscape Gardener learn bookkeeping?

I started with the first of four manuals, Getting Started, and it led me along quite smoothly. I learned some of the jargon and how the various features worked together.

I became knowledgeable about the different lists, registers and forms. With my data safely imported I now began to investigate. I discovered the Payee from Quicken 7/ Quicken 5 were now in the "Other"

list. I had to sort these out between "Customer" and "Vendor". There are similar features in QuickBooks as in Quicken, including Memorized Transactions and Reminder Notes.

QuickBooks Pro 3.1 also uses QuickFill in a similar way, remembering customers, vendors, product descriptions, invoices, and bills. Therefore, I only have to enter things once.

Because I came over from Quicken, I had to learn better ways of entering information than by the register only. For instance, when I create an invoice it gets added to the list of overdue invoices.

When I receive payment, I enter this in the "Receive Payments" area which adds it to the "Make Deposits" list. Then I use the "Make Deposits" activity to enter the deposits I need to make. This keeps track of where monies are coming from and where they are going.

There is also a feature for creating estimates. This form as other forms are customizable, so it can be set up to individual specifications. Once an estimate is created, if the customer accepts it, then it can be turned quickly into a final invoice.

When I came to a tough spot, I found using the sample company that comes with QuickBooks Pro a big help. I'm still exploring many of the different aspects in QuickBooks Pro 3.1. Since my company is so small and I don't carry an inventory, there are many parts I won't be using in the program.

I'm sure though that as I grow I will utilize more of the program and that it will grow with me. It just goes to show that even a landscape gardener can make use of a program such as QuickBooks and do just fine.

Specifications for QuickBooks Pro 3.1 Required: System 7.0 or higher and at least 6 MB of RAM with a 68020 or faster processor.

Recommended: 8 MB RAM with a 68030-25 Mhz processor or faster. ■

Disk File Recovery

by Ed Gooding
(Originally posted on Three's Company BBS)

RECENTLY I was confronted with a problem (fortunately that of another Apple /// user) where he was unable to access files on a disk or even catalog or copy files from it using the System Utilities program. On verifying the volume, we discovered that block 4 was bad. Block 4 lies at the heart of the volume directory which occupies blocks 2 through 5, and the system advised that the files endangered consisted of the entire volume! Since it was a MicroSci A143 volume, that meant that there was potentially a lot of data in trouble. System utilities seemed helpless to cope (as did Lazarus ///, incidentally).

Pascal Filer to the rescue! Using the Pascal Filer, I was able to list the directory. This listing gave an indication that some of the first files might be salvageable. Sure enough, the Filer was able to trans-

fer files from the endangered volume onto another volume, resulting in recovery of about 2/3 of the data on the diskette. Why the Filer could succeed where others failed I could not say. Perhaps someone out there can explain.

How did this happen? A momentary power surge or spike was most likely the culprit. It did provide a good object lesson, though, in backing up important data frequently. It also demonstrated that you shouldn't give up on apparently unrecoverable data until ALL options are exhausted. ■

Ed Gooding, (who was ///'s Company Sysop) also suggests trying The Retriever, by D A DataSystems (in the WAP PD Library). He says it will "go where Lazarus will not and will even recover partial files."

same time.

3. Using your copy of the emulation disk, type 2D<2000.21FFR
4. Change bytes 20FA and 20FB to 59 FF respectively.
5. Type 2D<2000.21FFW
6. You now have modified the integer basic ROM that gets loaded.

• MODIFY YOUR GAMEPORT EMULATION DISK TO RESET INTO MONITOR

You can block edit your Gameport Emulation disk so that you don't have to reboot the Emulation disk every time you want to switch from one game to another. The Gameport /// is a great hardware add-on for the ///, but it is a nuisance when you want to change games. The following mod will enable you to reset into Monitor, from which you can boot another][program by keying 6, CONTROL/P, RETURN.....or you can enter Basic by keying CONTROL/C, RETURN.....or you can do other interesting things while in the Monitor that the Gameport /// people didn't want you to do (which is why they locked you out in the first place).

Use Al Evan's BLOKACCESS, DA DataSystem's DISK WINDOW //, Dan Wade's SOS Block Editor or a][track/sector editor like Bag of Tricks' ZAP to edit the following blocks or tracks (this tutorial is oriented to /// mode and will be written for block editing, but I will give enough info for you to go in and track/sector edit, though you will have to do some work on your own).

You need to edit block 45 (hex 2D) and block 74 (hex 4A) with a /// block edit utility, or track 5 and track 9 with a][track/sector utility. If you use a track/sector utility, you will have to do a ZAP search for the following string of bytes and change them in hex:

```
FIND 1717F503FB0362FA
(Track 5) and change it to
1717F50359FF59FF (Note that
```

Apple II Emulation Tips for Apple /// Users

by Ed Gooding
(Originally published on the ///s Company BBS)

• MODIFY YOUR APPLE II EMULATION DISK TO ALLOW RESET TO MONITOR

(This does NOT apply to owners of the ///+//e cards)

Here's a tip for using the NMI. We'll have to modify the monitor

routine that loads into the /// during emulation.

1. Make a backup of your emulation disk using System Utilities.
2. Get into the /// monitor by pressing control-open apple-reset at the



only the FB0362FA were changed) This changes the Integer Basic Autostart Monitor address.....

FIND the same string on Track 9 and change it the same way to alter the Applesoft Basic Autostart Monitor address.....

If you are using DA DataSystems Disk Window ///, key the following:

RB,2D	Read block 2D
CX,FA,59FF59FF	Change the 4 bytes at hex offset FA to 59FF59FF
WB	Write the block back to disk
RB,4A	Read block 4A
CX,1FA,59FF59FF	Change the 4 bytes at hex offset 1FA to 59FF59FF
WB	Write the block back to disk
QT	Quit Disk Window (answer no at the prompt)

NOTES: Block 2D contains the Integer Basic address and Block 4A contains the Applesoft address. You can also apply these changes to the regular Emulation disk and the TG Joystick /// Emulation disk..

WAP NOTE: We have nearly all the disks discussed in the article above in our Apple /// PD Library. Check the back of the Journal for more information. ■

EZ-DIF /// EZ Pieces and DIF Files

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Introduction

DIF (Data Interchange Format) was invented by the VisiCalc folks back in the dark ages to allow data transfer between disparate data base and spread sheet systems. Most spread sheet and data base programs advertise that they will handle DIF files. /// EZ Pieces

(EZ) claims it will import and export DIF files. Via the standard DIF format, you could expect to transfer spread sheet data between, say, Lotus 1-2-3 and an EZ spread sheet or data base. That is not necessarily the case. The EZ-DIF connection is not all that it could be.

EZ has two problems with respect to DIF files. EZ will occasionally cause your Apple /// system to “hang” when trying to create a DIF file for export to another data base or spread sheet. EZ will occasionally give you zeros for numeric cells when importing a DIF file created by another program. Neither condition is desirable. Both are program bugs.

Unless you are a staunch believer in the Tooth Fairy, you are doubtless as certain as I that EZ bugs will not get fixed. Fortunately, there are ways around these two bugs. This article describes the insect ridden way that EZ handles standard DIF files and shows you how to function in spite of them. First, however, let’s see what exactly this DIF thing is.

WHAT’S THE DIF?

A DIF file contains only data — numbers and character strings — from a spread sheet or data base. If a spread sheet cell contains a formula, the corresponding DIF file entry shows the results of the calculation. A DIF file has three major elements: a header, a body, and a terminator. (See box at upper-left corner page 75.)

At the end of a DIF file is the terminator, another two-line group specifying End Of Data. The first line is “-1,0” and the second line is “EOD.”

A useful DIF feature is its format. It is an ASCII text file. ASCII text files may generally be freely sent over telephone lines by modem, so the source and destination computers and operating systems don’t mean beans. A Lotus 1-2-3 DIF file (MS-DOS) can be shipped by phone lines to an Apple /// or to any “fill in the blank” computer. You can also “look at” a DIF file with any handy text editor to make sure of what is contained therein.

Now that we all know what a DIF file is, let’s see how EZ makes good on its promise to read and write files in DIF format. If you’ve not yet had the pleasure, I suggest you’ll be unpleasantly surprised.

SYSTEM FAILURE 006

The dread SYSTEM FAILURE 006 message can occur whenever you try to “print” (via the “Openapple P” command) your EZ spread sheet file as an ASCII file or as a DIF file. The symptom is chillingly simple. After EZ asks you for the pathname of the output DIF or ASCII file, it asks again. This continues as long as you enter a valid but different pathname. If you press RETURN or ESCAPE in response to the second or subse-

TABLE	A DIF file's header contains general information about the spread sheet. The header section of a typical file is re-created to the left.
0,1	
"	
VECTORS	A DIF header always has at least four required groups of three elements each. Required groups are for TABLE, VECTORS, TUPLES and DATA. Each header group contains three lines. Optional groups may also appear.
0,10	
"	
TUPLES	
0,8	
"	The VECTORS group corresponds to the number of columns in the spread sheet (10 in this case), and the TUPLES group corresponds to the rows (eight in this example).
DATA	
0,0	DIF does not refer to them as ROWS and COLUMNS because some programs let you reverse the definitions.
"	

SuperCalc produces a file for data interchange that has a similar header format, but it lacks the VECTORS and TUPLES groups. The spread sheet's actual data always follow the DIF header's DATA group in the DIF body.

-1,0	A DIF file's body is organized by tuples, one for each row of the parent spread sheet. The TUPLES header group tells how many tuples the DIF file's body contains.
BOT	
1,0	
"F84"	Each tuple begins with a "BOT" two-line group, meaning Beginning Of Table. The BOT group is followed by two-line vector groups, one for each column of the parent spread sheet. The VECTORS header group tells how many vector groups that each tuple contains.
1,0	
"003754"	
1,0	
"Agri"	
1,0	
"Agronomy"	DIF allows "string" and "numeric" data values. If the value of a spread sheet cell is a character string, The first line of its corresponding vector group is "0,1."
1,0	
"020402"	The second line is the actual cell value. Surrounding the character string with quotation marks is optional.
0, 6.84	
V	
0, 2.00	
V	The first five values in this example are string data. The numeric fields ("003754" and "020402") in this example are really character strings on which no calculations should be performed. The "1,0" line specifies this distinction between numbers and numeric labels.
0, 397	
V	
0, 835	
V	
0, 322	

A true numeric value is denoted by a zero ("0") as the first part of the first line of the vector group. The actual value follows on the same line. In the example to the left, the last five items of the tuple are numeric. The second line of the vector group for a numeric entry is always "V." The "6.84" and "2.00" numeric entries could have been written in "exponential" (or scientific) notation as "6.84000E+00" and "1.999999E+00." Lotus 1-2-3 is a popular spread sheet that uses scientific notation.

no, guess what? Your system hangs up. You must re-boot.

This sad condition only occurs if your spread sheet has any "null" non-numeric cells. These are non-numeric entries that contain nothing. Numeric entries containing nothing are apparently OK. The fix is as simple as it is mind-numbing. Place at least one blank (via the space bar) in each non-numeric cell that doesn't contain anything. Either that, or set up your spread sheet originally with every cell defined as numeric. You can always change your mind and put "label" data in a previously defined "numeric" cell.

If you miss an empty non-numeric cell, a SYSTEM ERROR 006 will probably be the least of your worries. You may also trash the directory of the volume to which your DIF or ASCII file is directed. A damaged hard disk directory is much like a collision at sea. It can ruin your whole day. You should always "print" your spread sheet to an ASCII or DIF file on diskette. Preferably a diskette containing nothing you're fond of.

Importing Zeros

While EZ can mess up your hardware while trying to create a DIF file, importing a DIF file can just mess up your head. Both the spread sheet and data base parts of EZ will import any standard DIF file without a whimper. You need not worry about system crashes or trashed disk directories. You do, however, have to worry about some non-zero numeric values being imported as zeroes. Just some, mind you.

quent pathname queries, your system hangs up. If you re-enter the same pathname, EZ asks if it OK to over-

write the existing file. If you answer "y" for yes, you are told the existing file cannot be erased. If you answer "n" for



however, have to worry about some non-zero numeric values being imported as zeroes. Just some, mind you.

The DIF standard allows two formats for numeric values. Let's call them "algebraic" and "scientific" formats. The value 38.35 may be stored in a DIF file as "38.35" in algebraic notation. It may be stored as "3.834999E+01" in scientific notation. Both notations are acceptable under the published DIF standards. EZ only knows about algebraic notation. EZ, however, does not admit to that particular brand of myopia. It will not crash when it sees a numeric value expressed in scientific form. It will simply replace each such value with zero in your EZ spread sheet or data base. That is naughty!

Let's use Lotus 1-2-3 as an example. 1-2-3 creates a standard DIF file, as befits a product from the firm that bought the DIF Clearing House that sets DIF standards. 1-2-3 DIF files show integer values in algebraic notation, but any number with an imbedded decimal point (a "real" number) is shown in scientific notation. If your spread sheet has a column with several hundred integers and one "real" number, EZ will import those several hundred integers perfectly. The one "real" number will be replaced by a zero. That may not be appropriate. That may be fatal. Can you trust yourself to find that one anomaly in a large spread sheet or data base?

The "real number" bug, too, can be circumvented. The simplest way is via VisiCalc. Bare bones Apple /// VisiCalc is blessedly cheap these days. Advanced VisiCalc isn't all that expensive either. Both can import a Lotus 1-2-3 standard DIF file perfectly. EZ can import a VisiCalc file directly or via a DIF file created by either VisiCalc version. If you don't know how a particular program handles numbers, import its

DIF file into VisiCalc first.

Only then are you safe in transferring the file to EZ.

Conclusion

EZ cannot generally import or export a DIF file without help. If you have no real need to exchange EZ data base and spread sheet files with those of another program product, remember the classic response to

Women's SIG continued from page 23

and System software (usually System 7.5 and 7.6), use it both to boot up after a crash and to problem solve. Read your manual to find out how to use the CD for start up. For repairs of portables in the field, Lawrence recommended that you carry a spare copy of the Disk Tools floppy disk and insert it in the drive before booting up. Lawrence demonstrated use of both CD and floppy disks. He said, "Watch what happens as you boot up. Are there a lot of graphics loaded that use up memory? Your System Folder should not have any utilities in it. Make a separate folder for utilities and other things that benefit the computer, like Disk First Aid." Instead of putting items you don't want in the Trash, Lawrence said, put them in Utilities so they won't use memory. Disk First Aid repairs the Directory, an index that tells the computer where things are supposed to be physically located.

Open the Utilities Folder and Disk First Aid. The First Aid utility can be used about once a month to keep system 7.5 or 7.6 running smoothly. Watch while it reads the hard drive Directory. If the directory was damaged by a crash—"as Etana's was—" documents can be overwritten immediately because

"Doctor, it hurts when I do this." Most folks can get along quite well without knowing how to spell DIF. However, you need DIF to transfer data between data bases and spread sheets. EZ is a little freaky about DIF files. Even so, the tools and tips presented here will let you overcome those foibles and use EZ to its full potential. ■

the identifying file names have been lost. Lawrence verified repair of the Etana's Directory before restarting her computer. After the repair, bootup was noticeably faster.

Using carpenter's terms, Charters said that Disk First Aid should be used before using software like Norton Utilities, because Disk First Aid makes sure the computer's "foundation" is sound, whereas Norton Utilities just checks the "wall colors." Of the Norton product's various tools, he uses only Disk Doctor and Speed Disk.

After a crash is repaired, Lawrence suggested opening the Trash Can to find any "rescued" files or applications that were running at the time of the crash. The Finder's "Get Info" command can tell you the file size, the exact time of the crash, and may indicate what caused it. "View by Date" puts the most recently changed documents at the top of the list. You can avoid using the mouse by selecting "View Alphabetically" and pressing the letter key for the file you want (E for Excel, for example). The Find function in the Apple menu can also help you locate where something is stored; type in the name you want and wait for the hierarchical path to appear, then double click on the file's icon to open it.

Check the System Folder and select "View by Name." The System folder should contain only the things



used by the computer and nothing that you run as a program, said Lawrence; mixing the two will slow you down. Aldus, for example stores its utilities in the System folder, although they belong in Utilities. Aliases in the Apple Menu can also clutter up the System. Trashing things can be risky. With System 7 and higher, unwanted Extensions should simply be turned off in the Extensions Manager, rather than trashed permanently. [Some experts will recommend discarding those known to cause conflicts.] Conflict Catcher software can identify incompatibilities and can name every icon on the desktop.

If you have accidentally trashed an important document, it's not erased, but its Directory record is gone. To recover it, don't type anything or mess around with recovery techniques (unless you know how to use Norton Utilities). Shut down your Mac and get expert help. The "don't warn" box under the Trash's "Get Info" command should never be deselected; your only warning before accidentally deleting a big document may come from reading this warning.

Members of the audience made clear that the Trash on a floppy disk is different from the Trash on your hard disk. If you don't empty the floppy Trash, it can prevent more data entry on that disk, or it may waste your time when the Mac asks for reinsertion of the ejected floppy. Ejecting a floppy by using Command-E can leave a "ghost" that causes disk swapping, too. Use Command-Y, instead, said Grace.

The virus protection program Disinfectant 3.6 (freeware from the Pi office) can be used for troubleshooting, Lawrence noted, especially if you don't have Norton Utilities. Use Disinfectant to scan your hard disk and tell you if files are damaged (also see the "Problem Clinic" section of Disinfectant). Throw away

any damaged files and rebuild the desktop. If viruses are found, Disinfectant can remove them, except for the Microsoft macroviruses that are sometimes found in Word 6 and Excel 5. To be safe and avoid contamination, translate Word 6 documents to version 5. Memory problems (Type 1 Errors) often cause crashes. Apple computers historically are supplied with minimum memory, so Lawrence advises people to increase their computers' memory and speed. Power Macs (those with a four-number model code) should have at least 24 k of RAM; 8 and 16 are not enough, especially if you use a lot of files. Check the Control Panel and its Memory menu to increase memory cache size.

Lawrence said that valuable tools for diagnosing memory problems are available as part of the Gauge Series of software, including "Guru" (see the TCS Disk library). The latter can tell you how many SIMM slots each model of Mac has, what's in your own SIMM slots, and how fast your Mac actually runs. It can even work overnight to find errors in your Mac's memory. "Speech synthesis" can read the results to you in words!

Defragmenting files can greatly increase your efficiency and speed. Norton's Speed Disk lists (and shows you) which files are fragmented (some movies may be stored in 500 different pieces). The things that should not be fragmented include the System file, Finder file, Desktop file, Catalog, important fonts, and Netscape. Fragmentation itself doesn't cause damage, but if it's extensive it can make a file fragile (see the article by Engel in the Jan./Feb. *Journal*.). To defragment files, Charters prefers to use Norton Disk Doctor rather than Speed Disk, which can mess up documents by rewriting everything. Backup your files first, because defragmentation can damage them.

Lawrence reviewed the steps used in categorizing problems: (1) Know what you were doing or what you added just before a crash. (2) Use Disk First Aid for repair. (3) Restart your Mac and rebuild the Desktop (before start up, hold down the Command and Option keys). (4) Check conflicts with the Extension Manager and/or Conflict Catcher software. (5) Speed up operations with more memory, defragmentation, or Speed Doubler software. (6) Use Disinfectant for suspected viruses. (7) Bring your questions to the monthly meetings or the Tuesday night clinics at the Pi.

Additional tips from Charters: (1) Rename your hard drive anything *other than* the default "Macintosh HD" so that if you ever hook two Macs together (the new one can be plugged into your scuzzy port), you'll know which one is which. Be aware that renaming can screw up some Microsoft products. (2) Do consider getting a second hard drive; they are inexpensive now (about \$300 for a gigabyte). You may need a backup if one drive crashes, and you can use the second to repair or troubleshoot problems with the first one. Use one drive for bread-and-butter basics, the other for experimental or seldom-used programs. (3) Always drag the contents of a floppy disk to a hard drive and work on them there. Use floppy disks only for storage; don't ever work from them. Floppies have a short lifetime before they stop working. (Zip drives are mostly for storage, but you can work on them.) (4) Don't print from a floppy, either; the print file can spool to the floppy and get lost.

Our next meeting, May 22, will be devoted to Utilities, Freeware, and Shareware on the TCS. On July 24, the topic is How to Download from the TCS and WWW. Please join us. ■



Macintosh Disketeria

by Dave Weikert

New Disks

W E FEATURE 14 disks this month including some graphic applications and a new, but temporary, disk series. Single disks are available for \$4.00 each and quantity purchases are priced at \$3.50 for five or more.

Disketeria Catalog Update

Our Disketeria Catalog—in Easy View viewer format—permits fast browsing of the contents of our Disketeria collection. You can search for specific file names or disk numbers. The three Easy View windows make it easy to see the overall organization of the Disketeria collection as well as see the detailed descriptions of the contents of each folder or archive. The catalog disk costs \$4; you can trade in an older version of the Disketeria Catalog disk for the current version for \$1 (plus postage if by mail).

Graphics—8.XX

There were updates to two of the disks previously in this series. The first is to NIH Image, a graphics manipulation program for scientific and medical work. It may also be used as a substitute for PhotoShop for some applications. NIH Image is now a fat application containing both 68K and PPC code so it only requires one disk rather than the two previously provided. The second disk update is the latest version of GIF Converter which is used for graphics manipulation and conversion of graphic files to GIFs.

Grab-Bag Updates—30.XX

Since I am in the process of restructuring many of the disk series in the library but have not completed any yet, I am releasing the recent updates as a new Grab-Bag series. These programs are provided on disk with no regard to the series in which they will eventually reside. The series is temporary and will exist for only as long as the need exists; that is, until the appropriate series are revised and these programs included. If you recall, I did exactly the same thing about a year ago.

About Shareware Requests

Please honor authors' requests for shareware fees if you decide to add shareware programs to your software library. Shareware is a valuable distribution channel for low cost software and it is important to encourage authors to use this channel by paying them for their efforts.

DISK #8.10B — G 10

GRAPHICS-NIH IMAGE

NIH Image 1.61/fat By Wayne Rasband. An image processing and analysis program for the Macintosh that can acquire, display, edit, enhance, analyze, print and animate images. It reads and writes TIFF, PICT, PICS and MacPaint files, providing compatibility with many other applications, including programs for scanning, processing, editing, publishing and analyzing images. It supports many standard image pro-

cessing functions, including contrast enhancement, density profiling, smoothing, sharpening, edge detection, median filtering, and spatial convolution with user defined kernels. It also incorporates a Pascal-like macro programming language, providing the ability to automate complex, and frequently repetitive, processing tasks. Requires Mac with 8-bit video in color or gray scale and FPU.

NIH Image V1.60 Docs By Wayne Rasband, 'organized' by Mark Vivino. Documentation is in MS Word format and includes: **About NIH Image 1.60, Macro Notes, NIH Image 1.60 Manual and NIH Image Engineering 1.60.**

DISK #8.11B — G 11

GRAPHICS-GIF CONVERTER

GIFConverter 2.4d18: By Kevin Mitchell. Allows you to view, edit contrast, lightness and gamma and convert between various graphics formats, especially Graphics Interchange Format (GIF for short). You may view graphics images in GIF, RIFF, TIFF, JPG, JPEG (JFIF), MacPaint or PICT format. Save formats include GIF, RLE, scan, startup screen, RIFF TIFF and EPSN format. Requires Mac Plus or higher, System 6 or later. **Shareware - \$30, \$40 with documentation.**

DISK #30.01A

GRAB-BAG

GifScan 2.1: By Marc Boon. Assists you in writing HTML code by generating the necessary IMG tags to display images, including the HEIGHT and WIDTH part, and generates HREF tags for all other files.

INFOMaker 2.7: By Mark S. Wall. Format data from other computer systems (PCs, mainframes, etc.) or from other Macintosh applications. Places all fields of a record



in order on one line, separates them with tabs, strips control characters and leading and trailing spaces, inserts information for missing data, removes any unwanted data, and sets the file CREATOR so that data can be loaded directly into an application. Can also be used to split files on record boundaries and recombine or append files. Requires System 4.2 or greater. *Shareware - \$25.*

RealView 2.2: By Eyal Redler. Opens any kind of file, of any size, view its content, and save any chosen part of it into a file. RealView displays the content of the data fork of a file in a TEXT or HEXADECIMAL mode, using any font at any font size. Requires System 7.0 and later. *Shareware - \$10.*

Stuffit Lite™ 3.6 Installer: By Leonard Rosenthol. The Stuffit series of programs create a type of file called an archive, which is a collection of one or more files and folders that have been reduced in size through compression. Stuffit Lite includes some of the features of Stuffit Deluxe, a commercial program. Easy to install, just double click and follow the directions. *Shareware - \$30.*

UULite 2.0: By Jeff Strobel. A highly optimized, single-pass, disk based uudecoder/encoder. Supports multipart file decoding with automatic article header/footer removal with no manual editing required. Requires System 7.0 and later. *Shareware - \$29.*

Disk #30.02A

GRAB-BAG

AutoMenus Pro 3.2.2 (PPC): By Night Light Software. Each menu drops down and stays there when you move the mouse cursor into the menu area of the screen. When you move the cursor away, the menu closes up again. For System 7.0 and later. For Power PC Macs. *Shareware - \$15.*

Click there it is! 1.0.7: By Richard C. Cardona. Permits you to open/save a document into a place where the Finder already has a window opened for it. You can also make any visible window in the Finder your current folder by clicking on it. For System 7.0 and later. *Shareware - \$5.*

ClickPad 2.2.2: By Dan Wright. Allows you to use the TrackPad on your brand-spankin'-new PowerBook 520, 540, or 5300 without subjecting your thumb to the ergonomic horrors of the TrackPad button. Tapping the track pad works the same as the track pad switches. *Shareware - \$14.*

CopyPaste 3.3: By Peter Hoerster. Copy to/ paste from up to ten selections at a time using the CopyPaste clipboard. For System 7.0 and later. *Shareware - \$20.*

Default Folder 2.7: (formerly DFaultD) By Jon Gotow. Lets you assign, for each application you run, a default folder in which to store documents. The idea is that you shouldn't have to navigate throughout your disk the first time you try to save a document after starting up an application. For System 7.0 and later. *Shareware - \$25.*

DeskPicture 4.02: By Clay Maeckel. Display pictures on your desktop and manipulate them by dragging on image 'handles.' Handles PICT, startup, EPS and Photo CD images. For System 7.0 and later. *Shareware - \$19.95.*

KeyQuencer Lite 2.0: By Binary Software, Inc. Lets you create shortcuts, called macros, that perform a series of tasks with a single keystroke. You can type your name, change your monitor's colors, change the sound, connect to the Internet, or do just about anything—all with a keystroke. Requires System 7.0 and later.

Shareware - \$20.

Disk #30.03A

GRAB-BAG

DoubleScroll 2.1.2: By Edward Voas. A Control Panel that places a double arrow on each end of your scroll bars, allowing you to scroll in both directions without having to move your mouse from one end of your desk to the other to scroll back and forth. For System 7.0 and later. *Shareware - \$10.*

MyBattery 3.3.2: By Jeremy Kezer. Provides Mac Portable, PowerBook and Duo users with battery voltage, current and estimated useful time and battery charger status. For System 7.0 and later. *Shareware - \$10.*

PowerPCheck 3.1 FAT: By Alessandro Levi Montalcini. A drag & drop utility that looks for native PowerPC code inside applications, control panels, extensions and all other executable files. It can check individual files as well as folders or entire disks; it inspects both the data fork and the resource fork of each file and creates a detailed text report of all the native code it finds. Can also remove the PowerPC or 68K code from the inspected files. *Shareware - \$10.*

Program Switcher 3.2.1: By Michael F. Kamprath. Allows you to switch between the running programs on your System 7 or greater Mac via simple two-key keystroke. This feature was inspired by the same Windows functionality, but the author has improved on it and made an unique and fully configurable control panel which makes switching applications on the Macintosh as simple as pressing some keys. Requires System 7.0 and later. *Shareware - \$10.*

Quote of the Day 1.2: By Alastair Matthews. Displays a short quote or other interesting piece of infor-



mation; an alias to it is intended to be placed in your Startup Items folder so that it opens whenever you start up your Mac. Requires System 7.0 and later.

ScrapIt Pro 5.23 FAT: By John V. Holder. ScrapIt Pro, is the editable, searchable multimedia scrapbook... and a mini-word processor to boot! Need a place to store, sort, display and search all of your text notes, sounds, GIF files, JPEG files, QuickDraw 3D files? Can now launch URL's by command-clicking if you have Internet Config installed. One of MacUser's top 30 shareware programs of 1995! Requires System 6.0.5 and later. *Shareware - \$20.*

Smart Scroll 2.02: By Marc Moini. Enhances regular scroll bars so they show how much of a document is displayed in a window. The indicator tab in scroll bars becomes proportional: If a window is displaying half of a document, the tab will be half the scrollbar size. *Shareware - \$12.*

DISK #30.04A

GRAB-BAG

Snitch 2.1.1: By Mitch Jones. System 7.x Finder enhancement that extends the Get Info command allowing you to view and edit a variety of different information about a file, alias, folder, or disk. Snitch itself is also extendible, allowing other software developers to create new uses for Snitch. Requires System 7.0 and later. *Shareware - \$20.*

SoftwareFPU 3.04: By John Neil. Allows most programs expecting an FPU to work properly on the Macintosh Classic II, Color Classic, LC series and IIsi and some models of PowerBook, Centris and Performa series which are not configured with an FPU. An FPU (Floating Point Unit) is a hardware chip that performs certain

types of mathematical operations quickly. An FPU is also known as a floating point co-processor or a math co-processor. For System 6 and later. *Shareware - \$10.*

ValueFax 2.0.13 Installer: By Pancom. A fax program for the Macintosh. Said to be a commercial quality, full function product with QuickFax, fax driver, full reception and conversion of the fax in background, installer, and an on-line manual. *Shareware - \$20.*

Virtual 1.5.2: By Pierre-Luc Paour. Allows you to pretend you have more than one monitor. It draws as many virtual screens as you like, and the windows of open applications inside them. When you instruct Virtual to switch virtual screens, it moves the application windows so as to give you the illusion of working on the new virtual screen. Requires System 7.0 and later. *Shareware - \$10.*

DISK #30.05A

GRAB-BAG

Drop•PS 1.1.4: By Rich Siegel. Send text files containing PostScript™ code to any PostScript printer connected to an AppleTalk™ network. To send, simply drop a file, folder full of files, or disk full of onto the DPS application or an alias to the application.

Font Box 2.1 (FAT): By Insider Software. Checks for duplicate and corrupted fonts and superfluous bitmapped font sizes. Registered copy fixes problems with corrupted and duplicate fonts and resolves font ID conflicts. Create and use font library. *Registration, Personal Edition - \$29.95, standard - \$69.95 and network - \$79.95.*

Font Image Library 3.0g: By Tim Bobo. A cataloging application that helps you keep track of all

your fonts. It can catalog both installed and uninstalled fonts. *Shareware - \$5.*

Font Viewer 3.0: By Dan Watson. Lets you view fonts without having to open a big program. Fonts must be installed in your system to be viewed.

FontLoupe: By Johnathan. Looks inside a PostScript file and lists the fonts that are included. *Shareware - \$10.*

FontPrinter 3.1: By Mark J. Anderson. Lets you print out samples of selected installed fonts or uninstalled font suitcases. *Shareware - \$7.50.*

Fonts Manager™ 3.6.3: By Ed Hopkins. Create and select or remove 'sets' of font suitcases for installation in your System in a manner similar to Extensions Manager. Requires System 7.5 and later. *Shareware - \$10.*

DISK #30.06A

GRAB-BAG

Disk Charmer 3.0.8: By Fabrizio Oddone. Allows formatting of disks in background. Also locks out 'bad' sectors on floppy disks. This is imperative if you want to use disks with bad sectors with Systems earlier than 7.0 (down to 4.3). Requires System 7.0 and later. *Shareware - \$10.*

Disk Copy 6.1: By Apple Computer, Inc. Create disk images and write images to disk. This version does not do disk to disk copy as did the predecessor utility so you probably want to keep a copy of the old one around too.

Drop•Rename 3.0.2: By Bob Bradley. A fast and powerful renaming tool that allows you to rename files or folders with a variety of options. Some options include search and replace characters, add numbers and truncate to length (like for DOS). Requires System 7.0/ 7/1 and Thread Manager or



7.5 and later. *Shareware* - \$10.

DISK #30.07A

GRAB-BAG

DiskTracker 1.1.1 By Mark N. Pirri. A flexible disk cataloging system that permits you to perform multiple-criteria Boolean searches across all cataloged disks and within Stuffit and Compact Pro archives. You may also print labels. Requires System 7.0 and later. *Shareware* - \$20.

FileTyper 5.2.1: By Daniel Azuma. Performs a multitude of functions. Changes document creator and file type and changes finder flags (invisible, locked, etc.). **MakeAutoTyper** is a utility to create Auto Typers which change file types to those you specify. System 6 and 7 versions. *Shareware* - \$10.

DISK #30.08A

GRAB-BAG

SoundApp 2.2.3 Fat: By Norman Franke. Convert or play sounds using drag and drop. Includes a wide variety of sound formats for other computers as well as Macs. Can convert QuickTime soundtracks into a number of different formats. The "About" window has an excellent section that

summarized different sound formats. Requires System 7.0 and Sound Manager 3.1 or greater. QuickTime 2.5 or greater is recommended.

TattleTech 2.51: By John Mancino. Collects very complete information about your computer and its system related software. You may view information on screen by category, print it, write to a standard text file in standard or a special Bug Report format, or output it in database readable format. Requires System 6.0.4 and later; Mac Plus and later. *Shareware* - \$15 (level 1) or \$25 (level 2).

UltraFind™ 2.2: By Julian Linford and Steve Linford. A high speed professional Find File and Batch Filer utility that will find anything, anywhere on your system or network. Find images, documents, fonts, sounds, filters, XTensions, programs or Email messages. Find documents by words, names, numbers, codes, keywords, captions, titles or authors etc., and even cross-reference words with the built-in Thesaurus. *Shareware* - \$38.

DISK #30.09A

GRAB-BAG

DOCMaker SW v4.7.4 Installer:

By Mark Wall, Green Mountain Software. This program allows you to create stand alone documents that do not need a word processor to open them. You may include different fonts, sizes and styles and graphics and print from the document. Frequently used to document shareware. *Shareware* - \$25 for non-commercial use.

PlayerPRO 4.5.4 (FAT): By Antoine Rosset. A complete music editor for SoundTracker (Mods) software. It can load and play the following formats: MOD, S3M, Midi, MTM, MADx, OKTA, System 7 sound, MINS, WAV, XI, AIFF, AIFC, MED, 669, IT, ULT and XM. *Shareware* - \$99.

DISK #30.10A

GRAB-BAG

Learn To Type 1.5: By Cross Worlds Computing. A comprehensive package that teaches you how to type, whether beginner, two-finger typist or touch typist. **Versions available for 68K B&W, 68K color or PPC Macs. When ordering, please specify which format you require.** Requires QuickTime 2.5 or later to run game portion. *Shareware* - \$14.99. ■

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Macintosh Library Order Form

New disks in this issue!

- 8.10C NIH Image - 1 disk; \$4
- 8.11C GIF Converter - 1 disk; \$4†
- 30.XXA Grab-Bag - 10 disks; \$4 ea.†

Disketeria ValuPaks†

- PostScript Fonts 1, 14 disks; \$30
- PostScript Fonts 2, 5 disks; \$10
- TrueType Fonts 1, 9 disks; \$20
- TrueType Fonts 2, 4 disks; \$10
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9.XX - INITs & cdevs†

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- .35A - Quicken 4 & 5, 1 disk; \$4
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- .38A - Claris eMailer, 2 disks; \$8

30.XX - Grab-Bag Updates†

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† all files compressed
 ‡ on 1.44 Meg diskette(s)
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—**Service Technician:** Mac hardware reseller/ISP is seeks person for set-up/repair of high-end Mac systems in-house and on-site. PC and Internet experience also helpful. Fax resume to D. Discenza at (703) 642-1612 ■

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Index to Advertisers

A Computerist	8
Bethesda Computers	57
Cyber Exchange	33
DigitalNATION	1
Dupont Computers	9
Garage Sale	17
MacUpgrades	C4
Mac Tutorials	46
MC Price Breakers	11
<i>MDJournal</i>	53
Publishers Service Bureau...	C3
TCS	5

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EdSIG (education)_____	QuickTime SIG_____
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Game SIG_____	Telecommunications
	SIG (TCS)_____
<input type="checkbox"/> I can serve as a	Women's SIG_____

Hotline contact for _____

Enclose check or money order payable to Washington Apple Pi, Ltd.

- | | |
|---|------|
| <input type="checkbox"/> Basic Membership—1 year | \$49 |
| <input type="checkbox"/> Student rate* for 1 year | \$42 |

For other options please add correct amounts

- WAP Bulletin Board System (TCS)** with e-mail \$20
- WAP Bulletin Board System (TCS)** with Internet \$171
- 1st class mail (U.S.) \$17
- Airmail to Canada, Mexico, West Indies or Cental America \$20
- Airmail to Europe & South America \$38
- Airmail to Asia & elsewhere \$48
- Surface to Europe, Asia & elsewhere \$18

Total enclosed \$ _____

*Please enclose photocopy of current student ID.
 ** Access to the TCS is contingent on WAP having a current home telephone number for the member.

Indicate desired New Member kit (1 only)

- Apple II
- Apple II GS
- Apple III
- Mac 400k
- Mac 800 k
- Mac 1.44 k

Please circle Yes or No for the 2 items below.

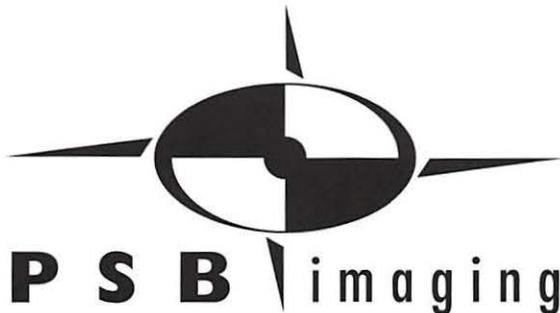
1. My name, address & phone number may be published in the membership director.
 Yes No.
2. Please leave my name on the Pi mailing list. (The list never leaves the office and all mailings are supervised by the Pi staff.)
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