WASHINGTON APPLE PI

*Election issue!
It's time to vote—
now!*

Mac
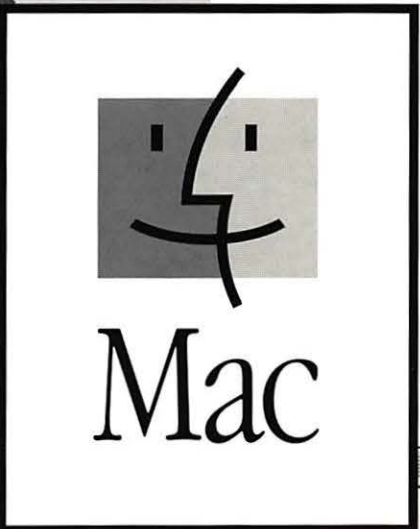
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washington Apple pi

Computer Show & Sale!

Saturday, 9 to 2
June 5, 1999

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

☆ In May see http://www.wap.org/
for a discount coupon on admission

☆ Thousands of **Y2K** compliant hardware
& software bargains

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Northern Virginia
Community College

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*Welcome to
Delmarva Slice*

*Thank you to all
who contributed
your Giant receipts
to the office.*

*Remember to vote
in the election.
All information
and your ballot is
in the centerfold.*

Advertising in the Journal
Some Orientation Possibilities
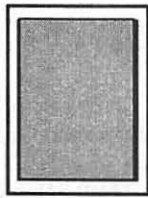
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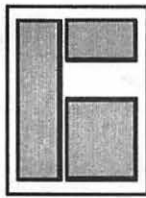
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Third Page (hor.)
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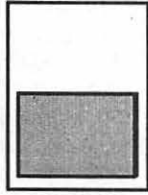
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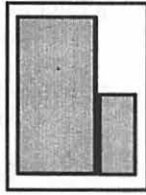
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No. of times ad runs	1	2-3	4-5	6+
Full Page	$450	$383	$338	$270
Covers	$550	$468	$413	$330
Two-thirds Page	$360	$306	$270	$216
Half Page	$300	$255	$225	$180
Third Page	$225	$191	$169	$135
Sixth Page	$125	$106	$93	$75

Special guaranteed positions incur a 10% surcharge

Ad Deadlines

The Washington Apple Pi Journal is published bi-monthly. The ad copy deadlines and ad space reservations are listed below for your convenience.

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

Deadlines

Writers' submissions

July/August .... May 20

Sept./Oct. .... June 20

Editors' submissions

July/August .... May 24

Sept./Oct. .... June 24

Ad space reservations

July/August .... May 20

Sept./Oct. .... June 20

Camera-ready ad copy

July/August .... May 24

Sept./Oct. .... June 24

Washington Apple Pi

This issue of the Washington Apple Pi Journal was created on a PowerMac, with proofing and final output on an HP LaserJet 5000 N.

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Icon Guide

Macintosh

Apple II, IIe, & IIGS

Apple III (SARA)

Apple Disk Libraries

Macintosh Disketeria

General Interest

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*Tues. 7-9 pm—Clinic Night Only—
Not Regular Office Hours*
Sat. 10 am -2 pm

* **The office will open at 1 p.m. on
the day of the General Meeting**
*When weather is bad, call to check
if office is open.*

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Mac Programmers volunteer needed

Music SIG Ed Moser (301) 924-1573

Newton SIG volunteer needed

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QuickTime SIG Stuart Bonwit (301) 598-2510
email: sbonwit@tcs.wap.org

Retired SIG Chuck James (301) 530-6471

StockSIG Morris Pelham contact on TCS

Three SIG David Ottalini (301) 681-6136
Paul Campbell (313) 255-6497

Women's SIG Kathleen Charters (410) 730-4658

Déjà Vu All Over Again

THE MACINTOSH community seems quite pleased with itself. The tangy colored iMacs are selling well as is the blue and white mini-tower G3. Those two and a couple more which will join them shortly are known in the trade as transparent Macs. Lots of people are noticing that Macintosh products are also the computer of choice on both the tube and the silver screen. How they appear in those two places is a story for another time.

What is bothering me in all this good news is a small, but important, undercurrent of discontent that is moving through a segment of the computer community that I believe affects Apple, and thus us. It has to do with one of the new input-output methodologies found in the mini-tower G3 and soon in the rest of the line. It is the replacement for SCSI called by Apple FireWire (a proprietary name claimed by Apple) and known in the rest of the industry as IEEE 1394.

Last month I told you that the computer industry, the peripherals industry, and even the Federal Communications Commission had signed on to this protocol as the way to move vast amounts of data. But a wrinkle has appeared. Intel, one of the signatory companies for the IEEE standard, has announced that it and seven other companies are cooperating on a USB 2.0 specification aimed at creating a faster version of the Universal Serial Bus. This new implementation of USB is designed to reach the "full range" of PC peripherals, hard drives, video cameras, high resolution scanners, etc. In plain English, USB 2.0 is being developed as a replacement for 1394 which itself is just beginning to gain market share.

I believe this move is cause for some concern and think you should know about it. What follows is not a technical treatise as to why FireWire is better or worse than the proposed new USB 2.0. I am more interested in politics of the issue, why someone at Apple should realize that they have been here before, and hope that whatever it is that started this gets corrected expeditiously.

A Commercial Announcement

Now that I have your attention, a brief aside for a public service announcement— you know, like one of those never-ending appeals from 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, like tell others about us, but that is all we really ask of you.

The reality is that thousands belong, but few participate. We place a ballot in each Journal, but only around 3% are returned—ballots, not magazines!

Please do me a BIG favor. Let me know that you are alive by mailing the ballot located in the center of the magazine to the address on the envelope. It would be nice if you voted for some of the folks who are willing to spend a year keeping this place moving forward. I really don't care who you vote for, or if you live in Chicago, how often. If trying to get you to vote

is a stretch, maybe getting you to at least return the ballot with a nice note penned to it has some chance.

All I ask is that you remove the ballot and envelope and write something -- anything -- on it. For example: if you have ever used one of our electronic services or ever visited our web page, write "Hello Lauri" on the ballot. Lauri Zeman is the lady who keeps the little penguins in line who make all that work. You can write "Hello Kathryn." She is the editor of this magazine that you are reading and gets nothing but busted deadlines.

Now go to the centerfold of this magazine. Do it! My story about FireWire will wait. . . . . . .

Ah, I see you are back

This is not an insignificant shift by Intel and its partners. Intel and Microsoft have been saying USB for low-impact peripherals, 1394 for more demanding devices for several years now. To quote Intel: "USB and IEEE 1394 are complementary technologies that will provide low-cost and high-performance connectivity options to makers of peripherals." Microsoft is equally clear: "The IEEE 1394 high-speed serial bus complements USB . . ." USB for lower-impact devices and FireWire for the most high-performance devices has been the plan for at least two years, and was openly discussed long before that. Then something happened.

Here is what Pat Gelsinger, Intel vice president and Desktop Products Group general manager said recently: "In the area of consumer electronics, we believe 1394 has a role . . . in the area of audio or visual high performance devices. . . . Broad deployment requires reasonable licensing terms around this technology for it to be accepted and deployed by the industry. In that sense, we're very happy with the progress that's been made recently announced. And we're looking forward to seeing those licensing discussions complete. . ."

Opps, skip all the verbal padding

and reread one sentence: ". . .Broad deployment requires reasonable licensing terms around this technology for it to be accepted and deployed by the industry. . .". Gee, to whom might he be referring? Mr. Gelsinger raised the problem of 1394 royalties, but never mentions Apple Computer—the inventor of 1394 and the collector of the royalties.

I see a parallel between the history of the Apple Data Bus (ADB) and the current dust-up over FireWire. That's the deja thing I mentioned earlier. ADB is a proprietary system developed in house by Apple to provide a uniform, powered, interface though which to attach devices such as mice, keyboards, adaptive firmware and lightpens and stuff. Unfortunately, ADB was "not invented here" and comes with royalty fees for its use. The Universal Serial Bus is a royalty free interface. Intel has said: " . . members of the core promoters group [of USB 2.0] do not intend to charge royalties for essential patents required to implement the specification." The IEEE 1394 implementation of Apple's FireWire contains certain chips and processes that are proprietary to Apple and for which Apple wants some money for each use of same. Opps.

Now the amount that Apple wants from each user is in dispute. There are claims that the fees are all over the landscape, depending on how willing you were back then to chip in some bucks to help fund the development of FireWire when it was a gleam in some engineer's eye. As a result, there are two movements afoot. One group of enterprising programmers is trying to write around the Apple proprietary code. Another approach is that being persued by Intel.

I am concerned that if 1394 becomes a "niche" for consumer electronics devices, Apple is in trouble. Transparent Macintosh's depends on FireWire. Professional users will find little in FireWire to interest them if there are no hard disks, scanners, RAID systems, and other high-end

peripherals available for it. Without broad industry support for 1394 as a general-purpose bus, it becomes another ADB—a bus for Macintosh-only peripherals. High royalties and the possibility of cheaper, well-promoted alternatives are leaving developers skittish about 1394. Apple can't tolerate such a position. The company is finally working its way out of making computers where standard computer hardware doesn't work.

The solution Apple found to its QuickTime 3 licensing fees may prove a model for avoiding another cliffhanger. Apple changed those requirements when developers moved to investigate other multimedia technologies to avoid what they considered exorbitant fees and annoying on-screen advertisements. That could be the model for recovering from this bad news story.

Now you know what I want to say. What say you? Did you do as I requested? Do you have your ballot in hand? Please do it now. Don't wait for someone else. Do you part to get us above 3%. We get there one ballot at a time. Please . . .

-- *Lorin*

P.S. Don't forget to mail it. ■

A Hundred Apple IIs

by Lorin Evans

We took a hundred Apple IIs
And then we said "Hey, listen"
"We're gonna help out some kids today"
"Because we know what they're missin' "
So we gathered our members up
And a great big task began
We refurbished computers for a generation
    that's had none
Whoa-oh-oh, yes we did

With just a hundred Apple IIs
We made their lives more interestin'
And they'll return to them every day
For a creative world to enter in
And they'll remember them every night
For the new ideas that make them feel
    bright
And we did it all with just a hundred
    Apple IIs
Yes we did, whoa-oh, yes we did

Now can't cha just see them a-walkin'
    'round and 'round
Samplin' the software they just found
Doin' just what they should do
To make their creative dreams come true
They'll enter a whole new world
Where those Apple IIs just glow
We created a haven where some great new
    thinkin' can grow
Whoa-oh-oh, yes we did
With just a hundred Apple IIs

FADE
People, let me tell ya what we did
With just a hundred Apple IIs*

Isn't It A Shame

EVERY DAY YOU and I make decisions to discard functioning devices for all sorts of reasons. Oftentimes I wonder if there isn't some way to pass on older, but workable devices to others. Lots of organizations run thrift shops that take in donations and sell them. But who operates a collection, refurbishment, and redistribution operation that charges nothing?

The office at Washington Apple Pi gets calls all the time from families and schools that are bailing out of Apple II and Macintosh equipment that no

> "What started out two years ago as a small scale redistribution of unwanted computers from member families to area religious institutions, shelters, and local families grew into an acceptance by WAP of whole collections of Apple II series computers, peripherals and software from area schools."

longer serves their needs. It seems a shame to us that these very functional machines might end up in a landfill or languish in some thrift shop. There must be a way to pass on to a new generation of people who cannot afford to purchase a computer, equipment that has knowledge to impart and years of life still in it. Why can't Washington Apple Pi organize such an effort? We can. We did. And this is the story of what happened.

In The Beginning

What started out two years ago as a small scale redistribution of unwanted computers from member families to area religious institutions, shelters, and local families grew into an acceptance by WAP of whole collections of Apple II series computers, peripherals and software from area schools. Word of mouth recommendations just could not relocate that many units.

We began to search for school systems that would be interested in these machines and would use them if available. We found three schools in way south Virginia who accepted our offer. We placed 15 Apple II set-ups each in two public and one charter school. But still we searched for a way to donate a seriously large block of computers in one area.

West Virginia Calls

We offered 50 machines to the state of West Virginia. Senator Robert C. Byrd and his staff helped us find the people within the state government who might be willing to take them. The Department of Education was not interested for the public schools, but the state was interested in them for another program. West Virginia has a state-wide Head Start style program which has no funding for computers. The director at each site was notified of our offer, and wow! When we stopped taking calls, we were looking at requests totaling over 200 computer sets. Washington Apple Pi has never worked through that size of a placement. But, we were willing to try.

Our Learning Curve

We knew what had to happen if this was to be something other than a

shift of tonnage from one location to another. Too often we have visited schools where well meaning companies have donated their surplus computers in the name of education, or a tax write-off, or being socially responsible. Unfortunately, in way too many cases, none of that occurred. The schools found themselves with inoperable and cannibalized machines; they had no educational software to run on them; and no one to tell them what to do to make "it" happen. If there is no money for the computers, where do people think the money is coming from to pay for acquisition of the missing parts, software or basic training. We have seen piles of 2, 3, and 486 machines languish for those reasons.

Not on Our Watch

When you call the Pi office offer-

ing your Apple II or Macintosh computer, we tell you to bring everything: computer, cables, software, manuals, etc. We don't promise that your computer, as delivered, will be found in some school. Depending on lots of variables, we can usually make two working units out of every three donated. That is because the Pi does not donate crippled units, or ones missing hardware, or software. We don't even donate computers missing keycaps! An Apple II or Macintosh donated to an organization in the name of the members of Washington Apple Pi is complete down to the introductory disks that came with that computer — period. WAP is not in the tonnage shifting business.

But, to assemble just 130 complete sets means acquiring dozens more for parts, stumbling over all of them until all sets are complete and then delivering all that equipment damage free. And this time, the address is not down the street from us, or around the bend. It is 13 different locations in West Virginia. Fortunately, three schools elected to come to our offices to pick up their allocations. In addition, there is one DC public school that is getting a set.

We got the heads of the other West Virginia day care facilities to agree to meet us at a central location — the town of Ronceverte. See if you can find it. I'll give you a hint. Think of a nice place to hide Congress in case of a nuclear war and you are in the general area, sort of.

Well, let's see. To get ready, you first apply many volunteer hours into testing and repairing all that stuff. Then you try to figure out how to crate 100 Apple IIe and IIc computers, 105 monitors, 125 disk drives, 40 printers, cables, cords, joysticks, instruction kits, soft-

ware, manuals, and all those boxes of pin-fed paper you gave us once upon a time.

Then you get a big truck, or in our case one large trailer and a truck. Add one expert in packing theatrical road shows to place all that stuff in each vehicle in such a fashion that the loads won't shift and break something, and you are ready to travel—to Ronceverte. Don't worry, they are not convinced you are coming. After all, they have been promised things before that never appeared; why should we be different? Well, we are! And, once they got over the shock of hearing

"This extensive undertaking, while well worth it, was not without costs. Think of the project as a milk stool. Two of the legs: need and assets are in abundance. It is the third leg, support resources to make it happen, that is the hardest to assemble."

from our office manager that we would be arriving on a certain date, arrangements were made for the other day care providers to pick up their share of the equipment.

Over The Blue Ridge

The trip itself was uneventful. We waved at the tall spire atop the Homestead (hint, hint), chugged up mountain roads, and raced down the other sides until we arrived at the turnoff to the town of Ronceverte. We discovered that there are two clues about liv-

ing this far out. The bigger the Wal-Mart, the smaller the community. We saw two "Super" Wal-Marts located at two different intersections, neither of which looked like it needed a crossing guard. The second clue was when we stopped at a local drug store for a drink. The sign on the door read: "Please Do Not Carry A Gun In Here". Oh, and the drug store is next to Blue Grass Gas. They sell LP gas in large cylinders.

The day care center that hosted us was located on the main street of the town of Ronceverte. Main street runs for four blocks. One side is a branch off the main CSX line. There is a classical 1900s station and a long passenger platform, but passenger trains stopped coming too many years ago. Now all that rumbles along Main Street are unitary coal trains. Across from the tracks are the shops of Ronceverte. You will find two barber shops, a "collectibles" store, a cabinet maker in the former corner Rexall Drug Store [the classic caticorner Rexall sign still hangs there], a bar, and the day care center. The other stores are vacant. The center staff is long on desire and short on equipment. You and your neighbors throw away more kids stuff than this center has for assets. The very few folks who walked by stared as we unloaded the 100 computers, monitors, disk drives, and accessories. The sight was as unreal to them as it was for the kids inside who also could not believe what was happening. The younger ones picked up on the excitement that emanated from the older children.

We set-up two computers: one with a Broderbund program called Play Room for the younger children, and one called Think Quick from the Learning Company on the other. It was not long before it was SRO beside each of the strangers who brought all this stuff to their daytime home. Just think back to the first time you held a joystick, much less mastered it. Remember again the pleasure you got

"Your support of Washington Apple Pi has brought new life to those venerable computers and the opportunity for a new generation of kids to experience the power to be their best."

from realizing that you could control that character on the screen by moving the control stick. It is OK to smile — because now you know what we saw in the faces of children and maybe just a touch of how they felt.

Are you getting some sense of the pleasure you brought these kids? Good. Just because you can afford a more sophisticated computer, does not diminish the capabilities of your older equipment — especially in the hands of kids who would not otherwise have that opportunity. Your support of Washington Apple Pi has brought new life to those venerable computers and the opportunity for a new generation of kids to experience the power to be their best. Good for you!

L'Addition
This extensive undertaking, while well worth it, was not without costs. Think of the project as a milk stool. Two of the legs: need and assets are in abundance. It is the third leg, support resources to make it happen, that is the hardest to assemble. This project consumed scarce Washington Apple Pi resources: considerable volunteer time, lots of storage space, and scarce dollars. New sources for that third leg need to be found if we are to under-

take another project on this scale. Grants, a different working relationship among the three component: donors—recipients—and ourselves, or additional outside support, will make it possible for me to again tell ya what we did with another "a hundred Apple IIs."

Cast of Characters
These are the people and institutions who gave equipment and time to made this possible:

Schools
  Charles E. Smith Jewish Day School
  Children's Learning Center
  Grace Episcopal School
  Gunston Hall Elementary School
  Norwood School
  Oneness School
  Our Lady of Lourdes School
  St. Agnes & St. Peters Schools

People
  Senator Robert C. Byrd
  Carol Dunn, assistant to Senator Byrd
  Brenda Williams, West Virginia Department of Education

For Washington Apple Pi
  Boris Levine
  Jay Thal
  John Ruffatto
  Herbert Block
  Karen and Ed Escalante
  Dave Ottalini
  Steve Fink
  Pat Fauquet
  Dale Smith
  Scott Poit
  Kristen Dunn-Thomason
  All the families who donated their Apple II computers, printers, and software

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* Title: A Hundred Pounds Of Clay
  Original lyrics ©, 1961 by: Bob Elgin, Luther Dixon, and Kay Roger

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February 1999 General Meeting Report

by Don Essick, Vice President, Macintosh

OUR FEATURED guest this month is Microsoft Corporation of Redmond, Washington. I'm sure you've heard of them. Adam Carroll, Business Manager of the Macintosh Business Unit and Omar Shahine of the Macintosh Development team in Cupertino came to give us the rundown on Internet Explorer 4.5 for Macintosh, Outlook Express 4.5 for Macintosh and Mactopia, Microsoft's web site devoted to things Macintosh.

The meeting started as usual with the Question and Answer session, hosted by Pi Secretary and Macintosh guru Lawrence Charters. The Q&A was followed by a quick business meeting at which the bylaw changes and upcoming Pi elections were discussed. Lawrence then played an interesting Star Wars QuickTime movie that explained what may *really* have happened at Tatooine.

I must confess, that I've been using Internet Explorer 4.5 for some time now. I took the chance and got the Beta early on. There are some things I like about Internet Explorer 4.5 and some things I like about that other browser. Anyway, Adam did a fantastic job of showing us some of the great new features in Internet Explorer 4.5. In fact, Internet Explorer 4.5 has gotten quite a few accolades in the browser wars. Internet Explorer 4.5 won the "Best of Show" at the recent MacWorld in San Francisco.

By now, most of us have experienced an Internet browser. Some of us are old enough to remember when interacting with computers meant punched cards and listings printed on an impact printer. Believe me, a browser is better. In the early days of the Internet, most of us browsed text files that had imbedded hypertext links. These links showed up in bold or a different color, and placing the cursor on your terminal over the link and hitting enter (this was on a VAX, no mouse!) moved you to another page. With the advent of modern browsers, with graphics, JAVA, Flash, etc. it now takes almost 3 minutes to load most pages with a 33.8K modem. Is this better? Could it be we have gotten carried away by the fluff at the expense of the content?

Right away, you notice that Internet Explorer 4.5 is a little different. Down the left side of the screen are four tabs, Favorites, History, Search and Page Holder. This is one of my favorite features of Internet Explorer 4.5. Clicking on any one of these tabs will slide your active page to the right and open up a frame with your selection in it. If you visit a site that you think you'd like to return to frequently, you simply select Favorites from the menu bar and click "add to favorites" and there it is. Click on the favorite and there you are. History remembers where you've been. The list is divided up into folders for today, yesterday, Tuesday, etc. and you can control the number of links saved in the preferences.

Ever tired of typing the same stuff over and over again? Internet Explorer 4.5 will now auto-complete information it recognizes in URLs and forms fields. In addition it as a forms auto complete feature which will fill in most common forms for you automatically. You can turn this feature on and off with preferences, of course, and you are prompted to fill in the data for auto-fill the first time you fill in a form. Any time you fill in a form field, the browser will suggest an auto-fill as soon as it recognizes a saved string. Since I fill out lots of forms when begging vendors to come and speak to us, I liked this feature. Your mileage may vary.

Another favorite feature of Internet Explorer 4.5 is the ability to go to a site and download its contents into a "Web Archive". This is a great feature for anyone who has a PowerBook and travels frequently. Instead of watching Armageddon on your DVD, you can surf the net from your airplane seat. Just set the site to save in a web archive before you go to bed and let the pages download to your hard drive. Next day on the plane, select offline browsing from the FILE menu and surf's up!

The Page Holder feature is one I didn't appreciate at first, but have come to appreciate more and more. Ever go to a web site that has a big page of links to follow for more information. Just drag that page into the page holder and you can follow the links without flipping back and forth between pages.

The Search tab opens up a standard search dialog and gives a list of results from one of the popular search engines. You are given a default engine and can change it if you like. There is also a link in the upper right corner to Sherlock. One suspects that this will be more tightly integrated in the future. One comment, my experience is that using Sherlock and Internet Explorer 4.5 together causes occasional crashes. I think this may be because of some problem such as init conflicts or something, because I haven't heard many complaints from other users.

By far my favorite feature is the "shrink pages to fit" feature when printing. Very often, I would print pages only to have information I needed truncated off the right side of

a page, or two pages would print with only the navigation bar or other useless data on the second page. Now you can preview what will print and Internet Explorer 4.5 will automatically try to shrink the page to fit on your printed page. This feature alone is worth the price, (oh yeah, its free!, I forgot.)

On to Outlook Express 4.5. I must admit I have tried this program and didn't like it. Not because it didn't work well or because it had some inherent flaw; it just wasn't what I was used to. Long ago, I worked for a company in Cambridge, Massachusetts which was an e-mail pioneer. They were close neighbors of Bolt, Beranek and Newman, the company that developed the Internet for DARPA. Well, I got used to a certain way of handling my e-mail and Outlook does things a bit differently. Some people actually like eating raw fish, too. It's a matter of taste. To be honest, I tried Outlook Express 4.5 again and liked it better, but I still haven't switched. My company recently switched our e-mail to Outlook, so I will be forced to use it at work. Maybe this will be the push I need to give this program a fair shake.

Another "feature" is the ability to create and read HTML mail. Once again my e-mail prejudice is showing, but getting fancy-shmancy e-mail is not on my hot list. Just plain text is fine by me. I could be wrong. Another feature which may get me to switch to Outlook Express 4.5 is that it handles newsgroups as well as e-mail.

Finally, Adam gave us a look at Mactopia, Microsoft's web site devoted to things Macintosh. It is very convenient having it all in one place at last, but personally, I find the "cartoonish" look off-putting. I'ts bad enough that the dark side still thinks that the Macintosh is just one step better than a Game Boy! Having a site which looks like Wylie Coyote and Beep-Beep are soon to appear doesn't make things much better. Once again, it's a matter of taste, but none of the other Microsoft pages have this childish look.

Following his demo, Adam bravely opened up the floor to questions from the audience. For the first time in my tenure doing these programs, someone who couldn't attend the meeting even e-mailed in a question. The questions were many and varied. One of the topics which I had expected did come up. Office for the Mac does not have a version of Access (a database package) nor does one appear to be on the horizon. It appears that FileMaker Pro has this market on the Mac.

Due to a shipping problem, the anticipated CD-ROMs of Internet Explorer 4.5 and Outlook Express 4.5 did not arrive in time for the meeting. Adam did promise to make sure we got several hundred copies to give away at next month's meeting. He did, however, bring lots of goodies to give away including four copies of Office 98 for the Macintosh and 50 Mactopia T-shirts, plus other stuff. Beth, our office manager begged for one of the copies of Office 98 for the Pi Office

and since she is so very nice to me and misses most meetings by manning the table in the lobby, I couldn't refuse.

Thanks to Adam Carroll and Omar Shahine for visiting us from the left coast. It really shows that vendors are serious about the Mac and about user groups to have them put up the resources to send two people to demo a product that they give away! Yes, I know Mr. Gates can afford it, but I appreciate it anyway.

Next month, Pi President Lorin Evans will give his annual Fireside Chat. No hints yet on what the topic will be. Also Tom Witte, Pi Board Member and QuickTime author will host QuickTime Follies. Examples of his work creating the Pi Birthday QuickTime Movie and other examples from Pi members and other sources. Word has it that Adobe is coming in April, but I don't have a topic from them yet either. See you next month! ∎

Internet Service Charges: A Misunderstanding

News reports of a Federal Communications Commission ruling sparked a tidal wave of computer user concerns in late 1998 and early 1999. Some news services, and many Internet users, misunderstood what the FCC was doing, and flooded the FCC, members of Congress, and Internet news groups with protests. Pi member Paul Gerstenbluth passed on the following letter of interest from Representative Bob Weygand, member of Congress from Rhode Island's 2nd District.

BOB WEYGAND
Congress of the United States
House of Representatives

February 5, 1999

Thank you for writing to me with your objections about the possible levying of charges against consumers for each time they access the Internet. I appreciate you contacting my office to voice your opinion.

Over 50 million Americans use the Internet whether it be for business,

educational or recreational purposes From the boardroom to the classroom, the Internet has become a powerful new resource for information.

You will be pleased to know that the reports of a per-minute usage charge on consumer access to Internet Service Providers (ISP) are erroneous. The Federal Communications Commission (FCC) has no intention of assessing a tax on Internet traffic or of making any changes in the ways consumers obtain and pay for access to the Internet.

This misunderstanding arose due to an FCC proceeding dealing with carrier to carrier payments, or "reciprocal compensation." This compensation is paid between telephone companies for the use of the local phone network and is not paid by Internet users. There is debate about whether local calls to Internet Service Providers are subject to reciprocal compensation, and this matter is currently being reviewed by the FCC. The manner in which consumers pay for Internet access is neither before the FCC nor Congress and there are no plans to change the current payment system. In fact, a local phone company cannot adjust their local rates to include an Internet surcharge without approval from state regulatory commissions. The FCC has also already stated that ISP traffic should be exempt from interstate or long distance access charges.

Again, let me assure you that the FCC has no plans to charge or to allow phone carriers to levy a usage fee on Internet users. I hope that this answers your questions. I will continue to monitor all legislation regarding this new technology and will keep your views in mind should the House of Representatives consider such legislation. Again, thank you for writing.

Sincerely,
Bob Weygand
Member of Congress

March 1999 General Meeting Report

By Don Essick, Vice President, Macintosh Programs

DUE TO A confluence of circumstances, the topic for this meeting was in flux to the last minute. In the final week before the meeting, it turned into the annual WAP QuickTime Festival. Last month, I had asked Tom Witte to explain the process he used to create the WAP 20th Anniversary QuickTime movie. I had also planned for Pi President, Lorin Evans to give his annual State of the Pi and Fireside Chat. Well, there was so much interest in things QuickTime that Lorin was pushed aside until another day.

The meeting started as usual with the Question and Answer session, hosted as usual by Pi Secretary and Macintosh Guru, Lawrence Charters. As usual the questions were wide ranging and the answers informative to all. A very interesting discussion on clean installs and the necessity of re-installing applications was very informative.

Tom Witte then took the stage to begin the program. Tom explained that QuickTime is not your normal Macintosh application or file format; rather it is an Information Architecture that describes a QuickTime object. Most of us think of QuickTime as a method of playing movie clips on our Macs, but that is just the MoviePlayer application. QuickTime is really the architecture that allows MoviePlayer to display a QuickTime object as a movie on our screen.

The first QuickTime clip shown was the HAL 9000 Year 2000 commercial which Steve Jobs introduced at the January MacWorld in San Francisco. I think this was the first full-scale commercial ever produced for the Internet. It was so popular that it was transferred to video and Apple paid the going rate to show it

during the Super Bowl later that month.

Next we got a look at the Lucasarts trailer for the upcoming "Star Wars, Episode 1, The Phantom Menace" motion picture, due to be released this summer. This is one of the most frequently downloaded large files on the Internet. I'm sure it has increased the downloads of QuickTime too. Following this we were treated to the obligatory system crash which seems to accompany most live demonstrations.

Next, Pi Member Dennis Dimick demonstrated creating a QuickTime slide show from a folder of images. If you have QuickTime 3.0 you can do this by simply creating a folder containing the images you want with sequentially numbered names. You then select "Open Image Sequence" from the File menu and you're off. QuickTime will ask you for a frame rate and create a sequencer application to show your images. If you want to create a self-contained QuickTime movie, you must export it as such. This will convert the original image to a compressed QuickTime file format using one of the many QuickTime "codecs."

A codec is an encoder/decoder application that compresses your raw video and/or audio to make it take up less space. It does this using mathematical formulas that determine which parts of the picture are "redundant" or can be derived from adjacent pixels. It then throws this information away and replaces it with a "key" that can be filled in dynamically when the movie is played. There are several

codecs in the QuickTime arsenal. You might want to experiment with them to see which ones give you acceptable results for your purpose. If you use Sorenson, be sure that you are sending the file to someone who has a PowerMac and QuickTime 3.0. The Sorenson codec is licensed with QuickTime 3.0 and is not public domain like many of the others and will only run on a PowerMac.

Dennis then presented a QuickTime slide show he created for his family. This production was created using Adobe Premiere to integrate pictures and sound and to edit effects. The image pan and zoom filter was especially effective in preventing the images from seeming static. It was a beautiful movie with excellent sound and made me want to go out and get an AV capable Mac and the software to do the same thing.

Following Dennis, Tom Berens gave us a quick demo of LiveStage from Totally Hip. LiveStage is an application that allows you to create QuickTime animations with scripts to make them interactive. There was a bee that followed the cursor, a "Concentration" game and an iMac memory game. All very small applications using QuickTime "sprites" and scripts. Demo disks were available and two copies were given away as door prizes.

Tom Witte then closed with the 20th Anniversary movie production demonstration. Tom took us through the process of selecting clips, pasting them together, creating a background and mask and assembling all of the parts to create the final product. During this process he also demonstrated Media Cleaner Pro by Terran Interactive. This is a utility that provides complete sets of media options for creating QuickTime objects. Just select CD-ROM and all of the different QuickTime options generally used for CD-ROM production are set (similar to a style sheet in a word processor.) You can then fine-tune these pre-set

options to your liking and save your rendered object.

The meeting closed, as usual with the door prize drawing. We gave away 2 copies of Live Stage courtesy of Totally Hip (http://www.totallyhip.com/) and Tom Berens, one copy of Media Cleaner Pro courtesy of Terran Interactive (http://www.terran.com/), a copy of Claris Impact courtesy of Claris Corporation and Microsoft Office and Mactopia mouse pads and t-shirts courtesy of Microsoft Corporation who also sent free CD-ROMs of Internet Explorer 3.5

and Outlook 3.5 as promised. These were available at the check-in table in the lobby. 3 NOAA "Turning the Tides" CD-ROMS (your tax dollars at work at http://www.noaa.gov/) and several books on OS8 and other things Macintosh by various authors and publishers.

Next Month: Adobe, topic yet to be announced. In May we hope to have Apple Computer and MacOS 8.6 and possibly their new Multimedia offering, FinalCut. In June, we take a break for the semi-annual computer show and sale. See you next month. ■

Board of Directors Notes
February 10, 1999

[Note: these are preliminary, as the Board had not approved the minutes as of this writing. Also, these are not the full minutes; those may be found on the Washington Apple Pi bulletin board, the TCS, in File Transfer Area 5.]

Directors Present: Neil Laubenthal, David Harris, Lou Dunham, Dave Weikert, Lorin Evans, Don Essick, Dale Smith, and Pat Fauquet.

Directors Absent: Tom Witte, Ellen Baniszewski, Dave Ottalini, Mary Keene, Blake Lange, Lawrence Charters, J. David Mudd

The meeting was called to order at 7:37 p.m. All members present were observed to be eating Oatmeal Raisin cookies with the exception of Don Essick. Don was eating grapes.

The minutes of the previous board meeting were approved as submitted.

Old Business
There was not old business to discuss.

New Business
The Office Manager reported to the Board that she was almost out of Pi Fillings CD-ROMs and suggested that the board authorize either a reprinting of version 4 or preparation of a revised version. There was some discussion regarding the cost effectiveness of a new version; after some discussion the board approved by consensus the preparation of a new version.

The board approved the membership of the Election Committee:

Jonathan Bernstein (chair), Alden Bestul, Alvin Auerbach, and Anson Geiger.

The board approved the membership of the Election Challenge Committee: Henry Ware.

There being no further business, the meeting was adjourned at 8:15 p.m. ■

[Note: the March 10, 1999 Board of Directors meeting was cancelled due to concerns about the weather.]

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WASHINGTON APPLE PI

At the crest of the third millennium

Low-Cost Y2K Solution

By now you have probably read that Macintosh computers do not have a Year 2000 problem. But Washington Apple Pi does. As a non-profit corporation, the Pi needs to have managers and leaders that reflect the needs of the user group. With the next term of our Board of Directors set to begin in June, 1999, the Pi needs several things from our members: (1) your ballots, indicating your choices for leadership positions, (2) your ballots to validate the election (if we don't get enough, we need to do it over again at great cost), (3) your enthusiasm, participation and ideas expressed through our meetings, tutorials, Journal articles, telecommunications services and other activities, and recruitment of new members.

But right now we need your ballots. So track down the ballot at the center of the magazine, fill it out, and mail it in so that it is received no later than **May 28, 1999.** Our computers might make it into the new year without any help, but the Pi needs your ballot to help guide us on our way. As Y2K solutions go, it is cheap and easy.

Graphic Arts SIG Meetings

by Blake Lange

February

TWENTY-FIVE members came out to the round table discussion of brochure production at the February meeting. Attending were Ed Escalante, Ray Duke, Diana Buell, Carol S. Cable, Marcia Marks, Karen Howe, Karen Klein, Valerie Burghardt, Carol Sky, Russell Kirsch, Blake Lange, Etana Finkler, Robert Allen, Elfi Zucchetto, Helen Dilley Barsalou, Mary Keene, Esta Gladstone, Charles A. James, Charlie Romero, Bob Russell, Bob Everett, George L. Venable, Jennifer Williams, Barbara Valakos, and Sonny Tohan.

Etana Finkler said, "The February Graphics SIG's topic was brochures, and was extremely helpful to me in a practical way, since I am somewhat a novice at brochure creation, having designed less than 30 brochures. Members brought in a variety of styles of work and shared a variety of experiences. We talked about how and where to get ideas.

"Someone shared this approximate quote from Picasso, 'A good artist borrows; a great artist steals.' By hearing that other artists sit down with Art Source Books, art magazines, etc., before they begin their design, it validated my taking the time to do that as well. We discussed the ethics of 'stealing ideas,' and talked about how the final product you create really can wind up with 'inspiration' rather than something 'stolen;'—that others ideas just help expand your material in different directions... sort of like pushing you past that blank white page. I found that to be true, when I was looking at how circles had been used in a magazine ad, and then I used circles and arcs as a graphics element, but my work looked nothing like what I had seen.

"One woman shared that sometimes she takes a walk outside the office and brings in a leaf or weed from outdoors, and scans it, and uses it in the brochure. I brought in a practical problem of estimating the time needed from design to print of a project, and got some great advice from several designers that enabled me to put in an organized hour-estimate breakdown the following Monday at work."

March

Seventeen members came out to the round table discussion on logo design at the March metting. Attending were Ed Escalante, Arthur Hoiland, Ronald I. Bloch, Harald Hoiland, Ann Aiken, Stuart Bonwit, Attila Horvath, Karen Klein, Carol Sky, Blake Lange, John W. Laughlin, Ann Lesnik, Helen Dilley Barsalou, Bob Russell, Bob Everett, Jennifer Williams, and Sonny Tohan.

There was a brief intermission when Stuart Bonwit showed off his latest multimedia project.

Figure 1. George Venable at the February meeting.

Figure 2. Two members having a discussion after the February meeting.

Figure 3. Attila Horvath speaking at the March meeting.

> "I brought in a practical problem of estimating the time needed from design to print of a project, and got some great advice from several designers that enabled me to put in an organized hour-estimate breakdown the following Monday at work."

Schedule

The schedule for the Graphic Arts SIG over the next several months is Saturdays May 8, June 1, and July 10.. Each meeting will be from 10:00am to Noon. The rule of thumb, in case you want to figure out when there will be a meeting, is that the meetings are scheduled the second Saturday of each month **except** when the Washington Apple Pi has a major activity scheduled for that day.

Directions

Mac Business Solutions is located at 9057 Gaither Road, Gaithersburg, Maryland 20877. The phone number is 301-330-4074. From Interstate 270 and Shady Grove Road go East two lights, make a left onto Gaither Road, then almost immediately turn into the second entrance on the rightFrom the Shady Grove Metro stop it is just a short taxi ride. ■
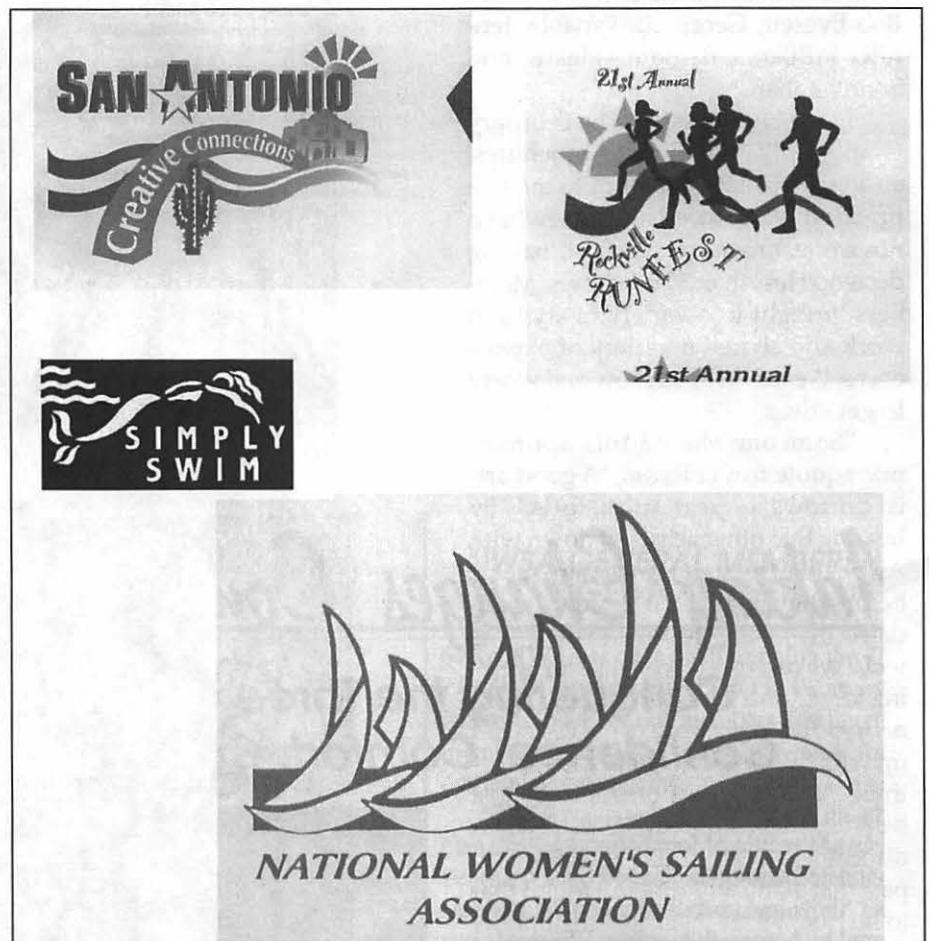
Four logos by Ann Aiken.

February Genealogy SIG Meeting

THE MEETING was held on February 9, 1999 beginning at about 10 am in the Training Room at the Washington Apple Pi Office. There were about a dozen members in attendance. Esta Goldstein gave a demonstration on using a scanner and bringing the image into PhotoShop for editing. The scanner software is used to capture the image, and it is then sent to the PhotoShop program for editing— changing size, cropping, brightness levels, etc. The final image can then be saved in a variety of formats depending on the future format (jpeg, tiff, gif, pict, etc.). If saved with a title of <photo.jpg> it can be used in e-mail.

For further questions about scanner use and graphics, Nancy Seferian, SysOp of the TCS, strongly suggests posting questions on the TCS, on the Graphics Board on Conference 3.

For questions regarding PhotoShop, there is a PhotoShop news group on AOL.

For scanners, a hint was given: the numbers 600,1200, etc., refer to the highest resolution that the scanner can do. A member noted that ASTRA 1200 was a good scanner.

For those members using photo albums or storing photos in other ways, *please* remember to use archival quality papers, albums, boxes, etc. for storage and protection.

A question was asked about an indexing system for use when saving photos and other scanned material. Ideally, it would have the date and title in the list. Some discussion was held but no one had a suggestion on how to do this.

Marie Bestul gave a demonstration of a "quirk" in Reunion 6,

when transferring GEDCOM files created by a non-Mac machine.

Names were placed in fields where they did not belong. Each name has to be transferred individually to the proper field. There does not seem to be a way to do a "batch fix." It was suggested that the problem be posed to Reunion by email or posted on their Web site.

Some additions to the Reunion 6 program were demonstrated. Under the TREE command, there is a command that will move the "boxes" away from the page breaks. Also, pictures can now be put into the family group sheet.

In the general discussion, it was noted that Personal Ancestral File (PAF) does not seem to be available for Macs although it was available in the past.

Plans for future meetings were discussed. One suggestion was to have a demo on Reunion 6.

The meeting was adjourned at noon.

—*Karen Kyte,*
Acting Secretary

March Genealogy SIG Meeting

No Meeting

(The Jordans with the keys were snow bound. Unfortunately, two hardy souls showed up anyway having left home before the cancellation phone calls reached them.)

May & June Agendas

Every Second Tuesday, 10am - noon, Pi Office

Producer of Reunion Software will be guest at the May Meeting

Frank Leister, President of Leister Productions— the creator

"For those members using photo albums or storing photos in other ways, *please* remember to use archival quality papers, albums, boxes, etc. for storage and protection."

of Reunion 6 is expected to meet with the SIG at its regular May meeting. Your will recall that he presented Reunion 5 to the Pi General Meeting last July. Since then an upgraded version has been released for this Cadillac of Macintosh genealogy programs.

(Little space is available in the Training Room where the SIG meets so those planning to attend who have not previously attended Genealogy SIG meetings should contact Ed Jordan to check on space availability. The easiest way to reach him is by email at edwin.jordan@tcs.wap.org)

June Meeting

Freewheeling discussion is planned following the guest speaker in May. ■

Genealogy SIG
is on vacation
July & August.
Meetings resume on
September 14th.

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February StockSIG Meeting

by Morris Pelham

I BROUGHT my usual information on the Dow stocks to our February meeting, but I also brought a handout showing the 52-week high price of each Dow stock for 1997 and for 1998. Wal-Mart had the biggest increase, from 41 and 15/16 in 1997 to 82 and 3/4 in 1998 or 197%, but IBM was second at 167% and Merck was third at 149%. Wal-Mart has never been in our Beating the Dow portfolios because it's dividend yield has never been high enough, but both IBM and Merck have been. For those of us who keep the stocks we buy, IBM and Merck have been big winners.

Mark Pankin brought both his 1998 and 1999 Beating the Dow Strategies and passed around copies.

Mark's 1998 Portfolio included DuPont, EastKodak, GenMotors, IntPaper, and Philip Morris. At year end that portfolio was up 9.4%, less than the Dow at 16.1%, less than the S&P 500 at 26.7% and less than the NASDAQ at 39.6%.

Mark's 1999 Portfolio includes Caterpillar, DuPont, Goodyear, MMM, and Philip Morris. So far it's down, but the year is young.

We had a good discussion of all our Dow stock portfolios, and comparisons with other choices, until someone suggested we had "beaten them to death."

We moved on to a discussion of LEAPS, that is long term options on the Dow stocks. Mark has been buying and selling these, in search of larger profits than our Beating the Dow Strategy, and it is working. Mark showed us how, with five pages of handouts.

We had a good discussion again,

with one comment from someone in the back about having once bought something like that and had a carload of plywood delivered to him!

Then Dave Weikert took the floor, and told us all about making money with Apple Computer stock.

Dave brought us copies of pages from Yahoo!Finance with charts of Apple stock prices over 3 months and 2 years, told us about his sources of information, told us where the iMac will be built, and got into a discussion of cash on hand, revenues, and profits in comparison with Gateway and Compaq.

Then Dave told us his sell target for the stock is still $50, and it still hasn't quite got there, but it is close. So close. Tantalizingly close. It goes up, it goes down, it goes up again he hopes . . .

By now it was well past 10 PM, one of our later meetings, so I began to put away the chairs and turn out the lights and people began to take the hint and move toward the door, still talking . . .

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. You are welcome to come and express your views. ∎

"We had a good discussion of all our Dow stock portfolios, and comparisons with other choices, until someone suggested we had 'beaten them to death.' "

March StockSIG Meeting

by Morris Pelham

FOR OUR MARCH meeting I brought my 1994 and 1995 Dow stock portfolio results, and Mark brought the 1999 information.

From the 1994 portfolio, Merck was the best performer. I bought it at 34, and then the price went down and I had the chance to buy a second time at 29 and 3/4. As of March 1, 1999 it had split once and paid a dividend for five years and was trading at 82. So I calculate the "cash back" at $34,354, or 538.89% of the "cash in" which was $6,375.

From the 1995 portfolio, GE was the best performer. I bought it at 54, it then split, and now trades at 100 and 5/16. Including the dividends I calculate the "cash back" at $20,615.50, or 381.77% of the "cash in" which was $5400.

To me it looks like holding these Dow stocks for a period of years produces the best results.

Mark Pankin thinks differently. He brought in a "Summary of Annual Average Price Changes of Beating the Dow Strategies and Market Averages." This handout looks at 13 different ways to apply our Beating the Dow strategy and compares those to how the Dow itself has done, the S&P 500, the NYSE Composite, and the NASDAQ since 1971. Basically Mark finds that our Beating the Dow hasn't since 1994.

So Mark is looking for other ways to outperform, and showed us his option strategies. These involve using long-term options on the Dow stocks, and so far look promising. If you want to see the details, come to the meeting.

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

On the Bleeding Edge

by David L. Harris

IN 1987 I started with a Mac Plus. That was replaced in August 1994 by a refurbished Performa 475, in recent times operating with System 7.5.5 and a 730 MB hard drive. You could not say I have been on the cutting edge of technology. But I got into my head, with encouragement from fellow Pi members and a recent general meeting with Apple, to buy a new Blue & White G3. This is one of the new Macs lacking some old familiar technologies such as a floppy drive, serial ports (for printers, modems, and such) and SCSI ports. (New technologies include USB and FireWire.) In addition, it came with MacOS 8.5.1. So the transition promised to be an adventure. Would I bleed? Here is what happened.

I ordered the low-end 300 MHz G3 via telephone on a Tuesday. I had planned to order it with an optional added SCSI card, so I could run my old SCSI peripherals (scanner and Zip drive) and maybe add an internal SCSI hard drive. Apple said no, that SCSI cards were not immediately available, and that I could not order one and wait. I did not avoid sales tax, either; Apple adds your local tax to the bill. To cut costs I had it shipped via ground. When the G3 shipped I got a confirming e-mail from Apple telling me when it would arrive. Later I obtained a UPS tracking number, and tracked its travels on the UPS Web site <http://www.ups.com/tracking/tracking.html>. This was not particularly helpful, because its whereabouts were noted while in transit only at a few points. The last entry (on a Friday) was that it was in Illinois; it arrived

the next Wednesday (as promised by Apple) and the next entry on the UPS site confirmed its delivery. Nothing in between.

The G3 is a mini-tower, and is larger and heavier than I had pictured. I had trouble finding a place for it with my limited available space. Of course, I *did* find a place! It sits beside my 14" NEC monitor which is still sitting on top the Performa. I had to find a way to transfer files from the Performa to the G3—remember, no floppy, no Zip drive (for now). Obtaining an Ethernet card for the Performa, I spent a couple of days learning the basics of networking, which I've never had to master before. The built-in AppleGuide helped here, as did the written manual for the Performa, which contains much more help than manuals do these days. I bought a 10Base-T Ethernet hub and connected the Performa to the G3 (which has 10/100Base-T built in). Once I had made the connection, I could begin to transfer files from Performa to G3. Since I have only one monitor, this required booting the Performa without monitor, using its ADB keyboard to shut it down properly when done (with the keyboard power key and then the Return key). Although the G3 can also use an ADB keyboard, and I had a spare bought for $5 at the December Garage Sale, I had no extra ADB cable, and had to use the iMac-like USB keyboard and mouse that came with the G3. All this with little desk space to begin with. The USB keyboard and

mouse are cute, but like others I found the round mouse hard to orient, and, since I often use my computer in the dark (except for illumination from the monitor), using the black-keyed USB keyboard full time was less than satisfactory. So there was a lot of keyboard and monitor switching until I got another ADB cable. I also had to use the monitor with the Performa to get anything off of my many floppy disks before I could Ethernet their files to the G3. More cable swapping. Not a desirable chore, what with my bad back, and all the connections being on the backs of the Performa and G3 (unlike the side connections on the iMac).

I mentioned above that the G3 lacks serial ports. I was fortunate to get a Keyspan USB-to-serial adaptor (they were in short supply, given all the other G3 and iMac owners trying to get them), which has two serial
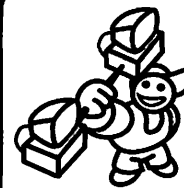
ports, one for printer and the other for modem. I checked first to make sure it was compatible with my external US Robotics modem and HP DeskWriter 550C printer. The adaptor plugs into one of the two USB ports on the back of the G3, and comes with software (on a CD; the G3 has a fast CD drive built in) to set it up. I found setup quite easy for both printer and modem access.

After getting most of the older (often shareware) software and files that I wanted transferred from the Performa to the new G3, I started seeing how much of it would work in the transition from System 7.5.5 to OS 8.5.1, with the added factor of a multigigabyte hard drive formatted as HFS+. I went to the Version Tracker Web site <http://www.versiontracker.com/> to see what were the latest versions (now PowerPC) of the software I wanted to keep, both commercial and shareware. In some cases no new versions seemed to be available.

Somewhat to my surprise most of my old software still works. I did have trouble with three of my often-used items: DiskTop, a utility for seeing and changing file details, WebArranger for checking URLs, and Personal Backup, the simple but effective backup software I got with my Zip drive in 1995. These programs all seemed to have trouble with the large hard drive, or possibly the HFS+ formatting—they claimed there wasn't enough space left on the hard drive to save, copy, or replace files, even though the drive had loads of free space. I found no newer versions of DiskTop or WebArranger. DiskTop seems still to work, though, after complaining, and I can "Save As" WebArranger files in a different folder each time. Personal Backup did have a low-cost update, and this works fine in the new environment. With the ease of use of Personal Backup I had gotten used to backing up my Performa after almost every session onto Zip disks. With no Zip, now I had gone a couple of weeks without being able to
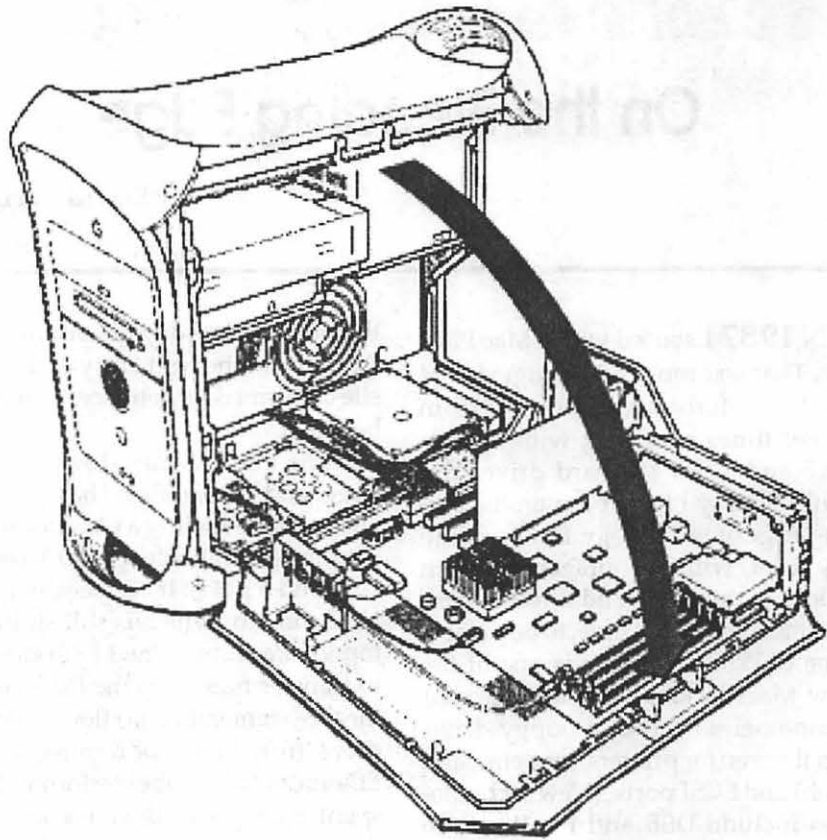
back up to a different drive, and was feeling exposed. I could have used the Ethernet connection to the Performa and used it as a backup, but it was still being used for other purposes, such as occasionally accessing Zip cartridges, floppies, and using the scanner. I didn't feel up to the conceptual confusion of using it for backup too.

Some other software compromises have had to be made. With the unsatisfactory state of StuffIt Deluxe 5.x, I stayed with 4.0 (adding the newest freeware StuffIt Expanders). This means I no longer have the True Finder Integration that I enjoyed in the past. And some applications have been entirely left behind.

Having to reinstall a number of applications, I was obliged to collect in one place all the software registration numbers from old invoices, letters, and cards. If I had kept this record updated as I went along it would have saved time. In some cases the new software picked up the registration info from preference files

I had copied from the Performa.

I had ordered an Orange Micro SCSI card from their Web site, so I could use the external Zip drive I have, directly access my UMAX scanner, and add an internal SCSI drive for backup, but the card wasn't immediately available. The G3 manual mentions only adding internal SCSI drives, but I learned from Lou Dunham that ATA drives could be used instead. They are cheaper than SCSI drives too, and can be formatted with Apple's Drive Setup. I ordered an 8 gigabyte IBM drive from ProDirect (1-800-524-9952), along with a cable with connections for two drives, and installed it—a very easy task with the G3's wide-swinging side door. Didn't work. The two drives (the new one and the factory-installed 6 gigabyte Quantum ATA drive) conflicted, and the computer wouldn't boot at all. With Lou's encouragement and help

washington ⒜pple pi general meetings

General Meeting
May 15, 1999
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Garage Sale
June 5, 1999

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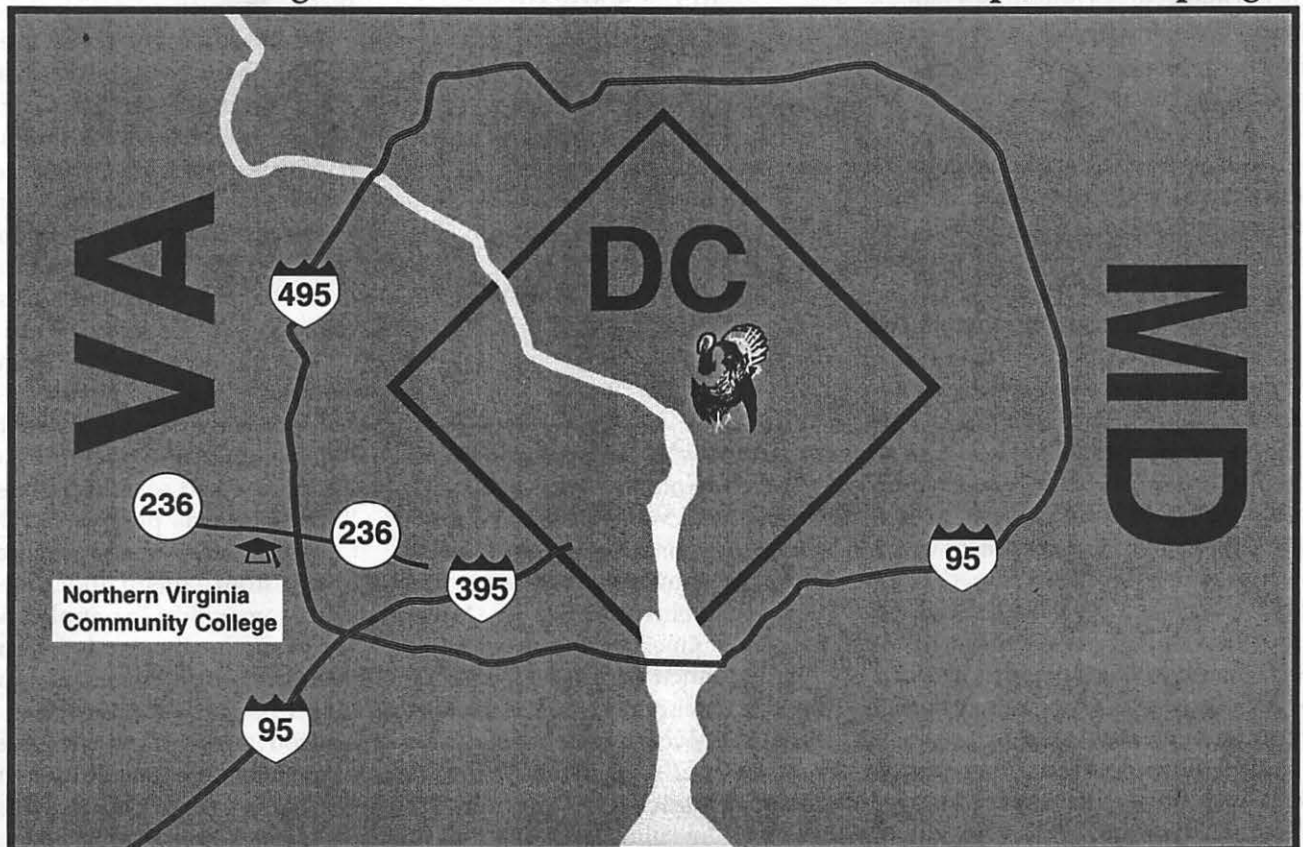
from a PC-savvy person at work I learned that the second drive had to be configured as a "slave" to the first one's "master." Both were set as masters from the factory. Changing the IBM drive to a slave was a matter of removing one easily-accessible jumper and moving it to a new location on the drive—after going to IBM's Web site to find out what jumpers were what. I installed OS 8.5.1 from the CD that comes with the G3, then Finder-copied everything from my first drive (named "Azul y Blanco") to my second (named "Azul Grande"). After the first copy, I use Personal Backup to automatically back up only files which have changed; unlike some other relatively low-cost software such as Retrospect Express it supports backing up onto hard drives. Routine backups now take only seconds.

Orange Micro

The Orange Micro Grappler 930U SCSI card finally arrived. Installation inside the G3 was a breeze, but removing all the external cables and reinstalling them, plus new ones, was **not**. My aching back!

Although my G3 did not come with an internal Zip drive, Iomega software is included. As soon as I connected my external Zip drive to the SCSI card and inserted a Zip disk, there it was on the Desktop.

It wasn't so easy with my UMAX Astra 610S (SCSI) scanner. The VistaScan software simply would not see the scanner, although SCSIProbe 1.5 said it was there, on bus 1. Evidently VistaScan was only looking on bus 0. A trip to the Orange Micro Web site <http://www.orangemicro.com/> showed a "Grappler Scanner" Control Panel. When downloaded and put into the Control Panels folder it allowed me to connect the scanner. Now VistaScan sees it and I can scan pictures with my old scanner.

One more piece of scanner-related software I have is TextBridge Pro, for Optical Character Reading. It proved much harder to get that to work. I could not even successfully open TextBridge: it hung at the registration screen, giving no choice but a forced reboot of the G3. Using Extensions Manager to turn off all extensions didn't help. But holding down the shift key at startup seems to have disabled more stuff, and I could then launch TextBridge. Of course, with no extensions it couldn't see the scanner. Finally, after three tries, TextBridge's registration screen gives you the option of getting rid of the registration screen forever. After that, I could launch TextBridge with extensions on, and it finally found the scanner.

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"Having to reinstall a number of applications, I was obliged to collect in one place all the software registration numbers from old invoices, letters, and cards. If I had kept this record updated as I went along it would have saved time."

————————

The results: was it worth it?

Yes! My old Performa had a CPU running at 25 MHz. My G3 runs at 300 MHz. And in fact many operations on the G3 *are* about ten times faster than on the Performa. For instance, America Online 3.01 took about 32 seconds to launch on the Performa. On the G3 it takes 3 seconds. I re-installed many of my commercial applications from their CDs, using the PowerPC versions instead of the previous 68K Mac ones. Installing from CDs now of-ten takes seconds instead of the minutes I am used to seeing. Applications such as Adobe Acrobat Reader now act decently. (Scrolling a pdf document on the Performa involved a frustrating wait until the screen re-drew.) Although Web communications are no faster, being limited by the modem speed, window re-draws and other operations that involve only the local computer are much faster, giving the experience of a faster Web.

My Performa was maxed out with 36 MB of RAM and 1 MB of video RAM. The G3 comes with 64 and 16. For now 64 MB of RAM seems quite adequate; maybe Apple is now shipping systems with enough RAM to start. With 16 MB of VRAM I can see "millions" of colors instead of "thousands" on my 14" monitor set for 640 x 480 pixels, and with a refresh rate of 72 cps. The monitor view with my old system seemed quite good, but the new one is better. The increased refresh rate eliminates all traces of flicker: the picture is rock-steady.

In addition I can now use things such as Sherlock to search, QuickTime 3.0 for movies, recent versions of RealAudio, and all the goodies that require the latest OS. As with my Mac Plus before it, I loved my Performa, and it gave me years of faithful service. I didn't miss too much what I didn't have. But now processes which took time on the Performa are almost instantaneous. I wouldn't want to return to the past.

Not everything that comes as standard with OS 8.5.1 is perfect. On my Performa I had several utilities that I liked. One was part of the CETools toolbox, which let me open programs or files from a menu under the Apple icon, from within any application. Favorites under the Apple menu in the new system pretty much duplicates that. I used to run HoverBar, which lets you launch or switch between applications, files, or folders with a mouse click on an icon bar which hovers on the screen. Apple's new Appli-

cation Switcher does the same thing for open applications, but I found it not as convenient as HoverBar. Any application, file, or folder can be added to HoverBar's bar, whether it is in use or not, and launched or opened with a click. The bar can be set to "grow" to the left or right. It can be hidden using Command-Esc. And by holding down the Option key while switching applications, all others can be hidden. Apple's Application Switcher operates to hide the application switched from, but it doesn't hide them all unless you click several times. So I've installed the latest version (1.3.1) of HoverBar. It seems to work. However, as with my old system it shows icons for background processes that I don't really need to see, and there are more of them (Folder Actions, for instance) than of old.

Summary

The new, "Blue & White" G3s come with new technology, and the absence of several pieces of old technology built in. For someone new to the Macintosh this would not be a major problem: they would just buy peripherals that would utilize the new technologies such as USB scanners, printers, modems, etc. For someone who has a number of "legacy" peripherals and doesn't want to replace them immediately, adaptors and plug-in cards must be added. In a short time this too will not be a problem, but when the G3s were introduced these were in short (or no) supply. In my case it did cause a bit of bleeding, as well as requiring an outlay of several hundred more dollars. But this really is an astonishingly fast and capable machine. Things that used to take many minutes, such as software installations, rebuilding the Desktop file, and so on, now take a few seconds or minutes at most. The Web is faster; AOL is faster. Everything is faster. I am only beginning to take advantage of its abilities. I hope to continue doing so for a number of years. ■

Software Review: *Font Reserve*

by Paul Chernoff
© 1999, Paul J. Chernoff

Font Reserve by DiamondSoft. $99, discounts for multiple licenses. http://www.diamondsoft.com/

HUNDREDS OF fonts. Thousands of fonts. Millions and billions and trillions of fonts. *Font Reserve* provides the ability to easily activate and deactivate fonts as they are needed, but it goes beyond *Suitcase* and *Adobe Type Manager Deluxe* by providing more font management tools. It is based on a sophisticated database with individual typefaces rather than font suitcases, which makes it a powerful tool for graphic artists and service bureaus. While those who do not need *Font Reserve's* sophistication might be better off with other, simpler interfaces,

Font Reserve offers features unavailable from its competitors.

While evaluating font management software for the production department at *The Washingtonian*, I established the following criteria; I wanted the ability to

■ activate and deactivate fonts whenever I want;

■ search for fonts based on a variety of criteria including name, family, and foundry;

■ automatically activate fonts in *QuarkXPress* documents, even if they are used in embedded EPS graphics;

■ easily duplicate font setups on multiple computers;
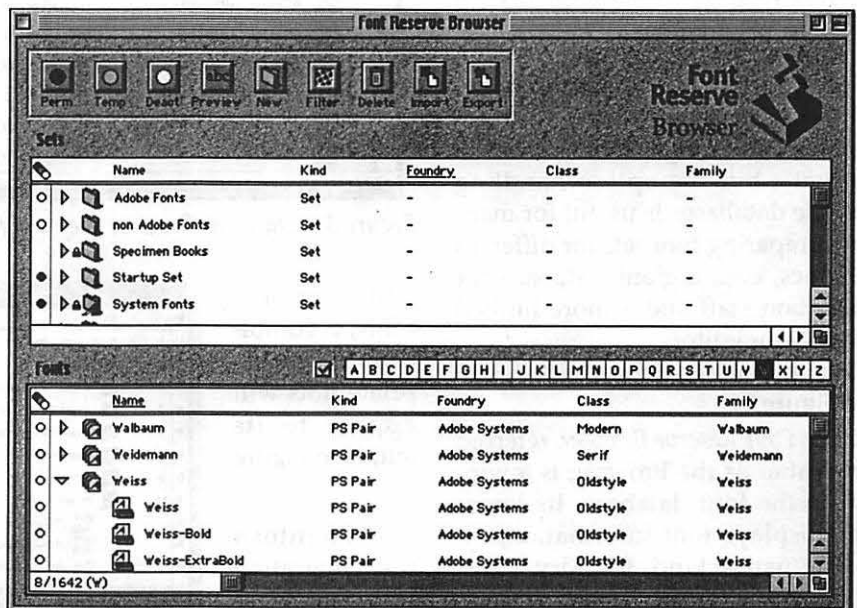
Figure 1 – Font Reserve *Browser*
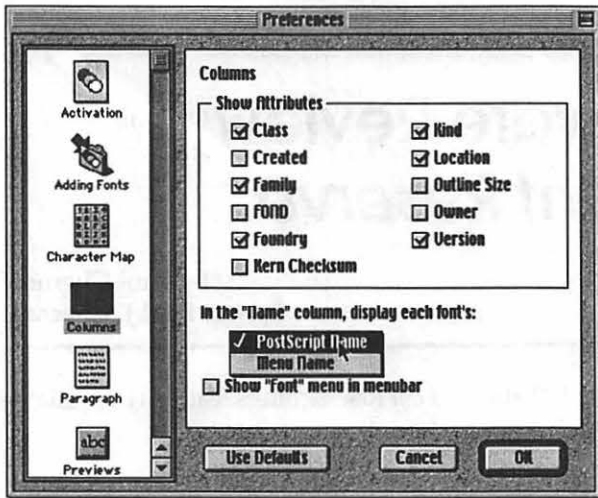
Figure 2 – Font Reserve *Preferences column settings*

■ easily add fonts at any time and be able to track newly added fonts;

■ help identify problems including corrupted fonts and orphaned outlines.

It's the Database Stupid
Most sophisticated database

Font Reserve gains its power and flexibility from its font oriented database. While it can manage font suitcases like its competitors, it is designed to work with individual typefaces. It provides font information, such as family and foundry.

A single Macintosh can have multiple font databases, though only one can be open at a time. Most users should find a single database to be adequate, but the option handling multiple databases is useful for managers preparing font sets for different machines, e.g., a giant database for production staff and a more limited database for editors.

Access through *Font Reserve Browser* (See Figure 1)

The *Font Reserve Browser*, referred to hereafter as the Browser, is a window to the font database. Its lower pane displays font information, including name, kind, foundry, class, and location. You can sort on any column and select which columns to display. You can also decide if you wish to view fonts by their PostScript or menu names. (See Figure 2.)

Three Views of Fonts

You can view the fonts in three different ways: by font, by family, and by suitcase. I often view by family since it is a logical unit; font families often have easy-to-read names — Adobe Caslon makes more sense to me than ACaslon. A family might be split across multiple suitcases, and since I allow *Font Reserve* to set up my suitcase structure — read about the Vault below — its suitcases do not always make sense to me. If a font is inactive, a white dot will appear to its left; if temporarily active, a blue dot; if permanently open, a black circle. If a family or suitcase holds both active and inactive fonts, a combination of appropriate dots will appear to its left. (See Figure 3.)

Macintosh users migrating from *Suitcase* to *Font Reserve* will appreciate that *Font Reserve* does allow you to create your own font suitcases (see below) and to view by suitcase. *Font Reserve* allows you to take advantage of its abilities while working in a manner similar to that of *Suitcase*.

Sets

You can organization your fonts into sets. Sets make it convenient to organize your fonts by to project, client, or any other criteria. A font can be a member of none, one, or more sets. You can activate or deactivate entire sets at a time. In *Suitcase* and *Adobe Type Manager Deluxe*, suitcases go into sets. In *Font Reserve*, individual fonts go into sets, which is a more flexible method.

All fonts in a set can be activated or deactivated in one action, and sets can be placed within other sets. The Browser's upper window pane displays sets and fonts (see Figure 1). As with the fonts pane, you can see if a set's fonts are active or inactive or a combination of the two. Figure 4

Figure 3 – *Different Browser views of fonts: font, family, and suitcase*

Figure 4 – *Sets of fonts*

Figure 5 – The Vault as viewed through the Finder

Figure 6 – Set of fonts being used by QuarkXPress

shows that the Startup Set has both active and inactive fonts and holds a number of other sets. The Benguiat Gothic set is open to display its fonts. (See Figure 4.)

Storing Fonts

Font Reserve offers two ways to physically store your fonts. You can use both methods in a single database.

Alias method

The alias method works similar to the way *Suitcase* and *Adobe Type Manager Deluxe* work. You set up your font suitcases any way you want before adding them to the database. You must use this method if you share fonts on a file server connected to multiple Macs. Fonts stored on file servers, CD-ROMs, and removable media should be stored in this manner.

The alias method gets its name from using the Macintosh's alias technology to add fonts to the database. If you activate a font entered through the

alias method and the font is not on the local hard disk, you will be prompted to log onto the appropriate file server or insert the proper disk or CD-ROM. Anyone wishing to control suitcase name and composition should use this method.

The Vault

The other method is to allow *Font Reserve* to store fonts in its Vault. The Vault is a series of folders and suitcases organized by type (PostScript, Bitmap, TrueType), type foundry (e.g., Adobe, Bitstream), font family (e.g., Bernhard Modern), and version number. The lowest level folder houses the font suitcase and any related outline files. You will probably never have to open the Vault through the Finder. (See Figure 5.)

Because all fonts in a suitcase must be turned on and off as a group unless you choose to activate copies of fonts (see below), the Vault's disadvantage is that you might not want to activate all nine variations of Adobe's Copperplate font. Fortunately, Font Reserve's alias method allows you to create your own suitcases (see above).

The Vault provides specific advantages. Duplicate fonts are never added to the Vault. If you have suitcases that hold a hodge-podge of typefaces, these are separated from each other. Sometimes applications come with a variety of fonts in a single suitcase, or you might have previously crammed

many fonts into a single suitcase. The Vault segregates these fonts in a logical manner.

I find that I prefer using the Vault method for the fonts owned by my employer and the alias method for fonts supplied by our advertisers. The Vault method makes it easier to replicate font databases from one computer to another without resorting to putting fonts on a file server. The alias method is perfect for any fonts supplied to us by advertisers since these sit on our file server and are removed from the database at the end of the month.

Using *Font Reserve*

Despite its sophistication *Font Reserve* is easy to use. It can do the basics of turning fonts on and off, but its advanced features are easy to access. *Font Reserve* takes advantage of Apple technologies such as drag and drop, alias, and AppleScript.

Activating fonts

Fonts can be activated by clicking on the dot to the left of the font, its suitcase, its family, or a font set (see Figure 1). You can assign whether a click permanently or temporarily activates fonts — temporarily activated fonts will be inactive after you restart your Mac. You can also activate fonts by selecting the fonts, suitcases, families, or sets and clicking their permanent or temporary activation buttons. Once activated the fonts are instantly available in every application. The only caveat is that most applications do not update their font menus after they are launched. However, many applications important to graphic artists, such as *QuarkXPress* and *Adobe Illustrator*, do update their font menus while they are running.

If you do not read the manual, you might not realize that when you activate a font, all of the fonts belonging to that font's suitcase are also activated. This restriction is caused by to the MacOS. This works no differently from *Suitcase* and *Adobe Type Manager Deluxe* except that *Font Reserve's* inter-

Figure 7 – Jump to the first font dialog box

Figure 8 – Filter menu

face allows you to select an individual font as opposed to forcing you to select an entire suitcase.

There is one exception to the suitcase rule: if *Font Reserve* is set to open copies of fonts, it can open up an individual font without opening other members of its suitcase. The drawback is that it takes longer to open copies of fonts. But using font copies rather than the actual fonts yields other advantages. The original font files are protected against corrupt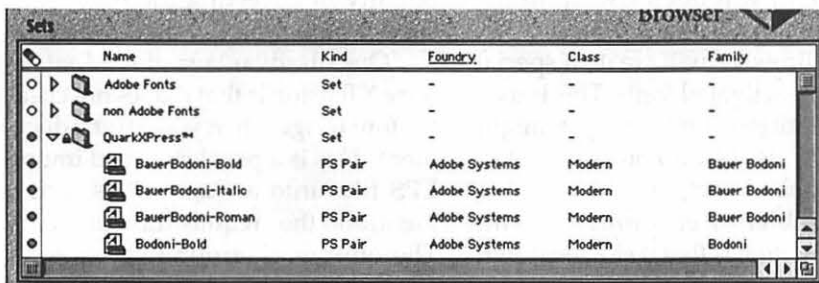ion, fonts shared on a file server will be accessed more efficiently, and fonts on a CD-ROM will be temporarily copied to the hard disk, allowing you to remove the CD-ROM from your computer.

Figure 9 – Filter dialog box

Auto-activation

Font Reserve offers font auto-activation. If you open a document using a font that is not active, *Font Reserve* can turn it on in many cases. Since applications use different methods of accessing fonts, auto-activation will not work with every application. In addition, since most applications cannot update their font menu if fonts are activated while the application is open, the font will display properly in the opened document, but the font will not show up in the font menu.

The Browser will create a special set of auto-activated fonts. This is useful in identifying fonts that you might frequently use but do not have set to be permanently active.

A problem I encountered with auto-activation is that it slowed down my computer too much. My computer would seem to freeze whenever I changed applications and auto-activation was on. I suspect that this is because I normally have 452 fonts open.

QuarkXPress XTension

While I don't use *Font Reserve's* normal auto-activate feature, I do use its *QuarkXPress* XTension. This XTension will automatically activate any font used in a *QuarkXPress* 3.32 or 4.x document when the document is opened, including fonts required by embedded EPS files. I find that the XTension activates the required fonts over 95% of the time. I have not been able to establish a reason why the XTension sometimes fails to automatically activate a document's font.

All fonts being used in *QuarkXPress* documents will show up as a special set, even if some of the fonts are already open. This can be very handy in assembly fonts to send with your document to a typesetter. If you drag the *QuarkXPress* set to the Macintosh desktop, a copy of all suitcases and PostScript outlines will be created. (See Figure 6.)

Two additional features are of note. The XTension allows you to create a new set based on the fonts used in a document from within *QuarkXPress*. If you are designing a new publication and want to easily activate the fonts you use in the future, the *Font Reserve* XTension makes it easy. The XTension also adds the capability of collecting the fonts for a service bureau.

One disadvantage of the *Font Reserve* XTension is that it does not check for font usage when you print a document. This is a problem if you import EPS files into a *QuarkXPress* document, and they require different fonts. The only work-around solution for version 2.02 is to close and reopen the document. DiamondSoft is working on a new version of the XTension that will activate required fonts whenever EPS graphics are placed in a *QuarkXPress* document.

Ownership

One font characteristic you can apply is font ownership. This adds an optional additional layer of organization. If you need to make it clear that you or a client owns a font, you can designate its owner. Or you might want to indicate if a particular department or your entire company has the rights to use a font. For example, The Washingtonian, Inc. has a site license to many fonts, but the production department has purchased additional fonts for constructing ads. It is important that the editorial part of the office never uses these fonts. Ownership can be used to track who is allowed to use particular fonts.

Finding fonts

When your fonts number in the hundreds or thousands, it can be difficult to find what you want. *Font Re-*
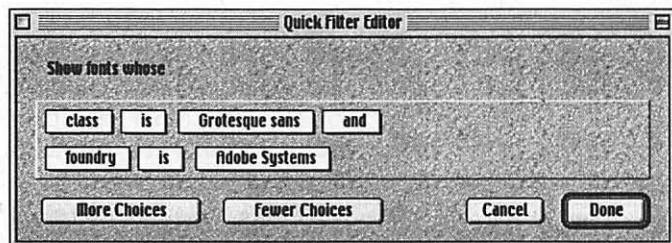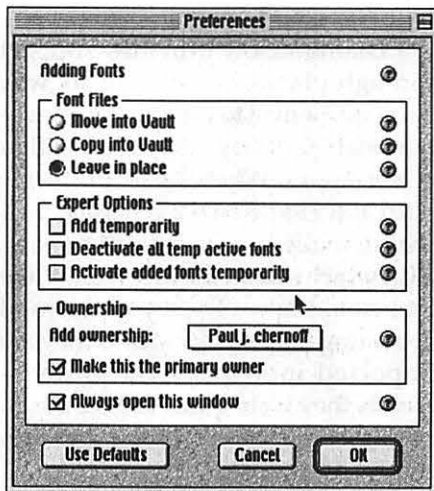
Figure 10 – Import Preferences

serve makes it easy to search for fonts, even if you are unsure of their names. The Browser offers a number of ways of finding fonts.

The first way is by name. You can start typing in the Browser, and a dialog box will appear that offers to take you to the first font that matches what you type. But if you don't know the beginning of the font's name, there are other options. (See Figure 7.)

The Browser's filter ability makes it easy to find fonts. A number of standard filters are provided, such as active fonts, orphan bitmaps, and PostScript fonts. The filters reduce the size of the font list. The Browser also provides ways to create your own filters. (See Figure 8.)

You can create new filters to use once or add to the Filter menu. Select Edit Filters… or Edit Quick Filter. The former allows you to edit the filter menu, while the latter instantly applies the filter criteria. The filter editor is similar to the Macintosh's Find utility. You can create multiple search criteria, and all columns can be the basis of a Filter. If you know that you want a Garamond font but don't know its exact name, you can create a Filter for all fonts that have Garamond in their name. Or you might want to look through all Grotesque Sans fonts and look for the one that best meets your needs. Or you might want to look for

a font owned by a specific client. All are possible in *Font Reserve*. (See Figure 9.)

Adding fonts to the *Font Reserve* database

Adding fonts to the *Font Reserve* database is as simple as dragging and dropping. Just take the folder holding your fonts and drag it either onto one of the supplied applets and on the Browser's set or fonts window panes. Unless you change the preferences, you will be asked if you want to move the fonts to the Vault, copy the fonts, or leave the fonts in place and add their alias' to the database. Other options include assigning font ownership and activation. You can even temporarily add a font to the database so that it will be removed when you shut down your Macintosh. (See Figure 10.)

The difference between dragging the folder to the Browser's set or fonts window panes is that the former will create sets that match the suitcase organization and the latter will just import the fonts without creating any sets.

I like the flexibility the import options provided. I find that when I import fonts, I tend to change the options based on use. Sometimes I put fonts in the Vault; other times it makes sense to leave them in place.

Perhaps the most important feature of the import process is error checking. *Font Reserve* creates a log of every problem encountered. This includes corrupted fonts, duplicate fonts, and orphaned bitmaps. When I imported my office's fonts, I was sur-

prised by the number of problems encountered. The manual provides good guidance on what to do about identified font problems.

Viewing fonts

A designer often wants to look at fonts before activating them. *Font Reserve* provides three different customizable on screen views of fonts and has the ability to print a variety of specimen pages. You can preview a font as a single sentence, as a paragraph, or as a waterfall showing the font at various sizes. You can change the text for single and paragraph views and adjust the font sizes for all previews. (See Figure 11.)

Font Reserve provides 10 different specimen templates, and you can modify them or create your own.

Font collection

Font Reserve makes it easy to collect fonts to send with a file to a service bureau. You can drag a set, family, suitcase, or individual font from the Browser to the desktop. *Font Reserve* will copy the selected fonts as a single suitcase, with any accompanying PostScript fonts.

AppleScript

Font Reserve is AppleScriptable but not recordable. This is because you script the *Font Reserve* application, which is a faceless database program, and not the *Font Reserve* Browser. Unfortunately, AppleScript documentation is minimal, consisting of two sample scripts. While it appears to be highly scriptable I did not have
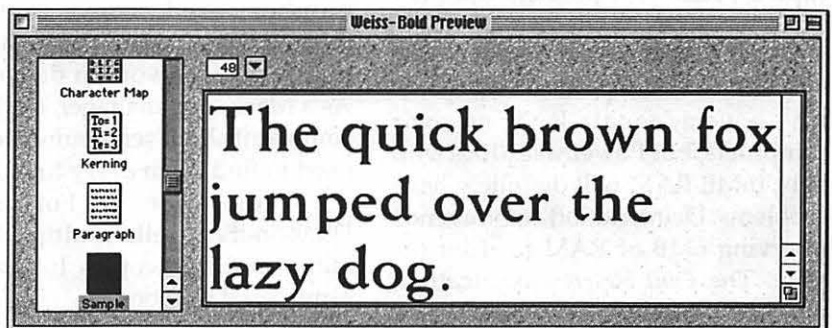
Figure 11 – Preview

time to learn how to do it. More documentation would be appreciated.

Replication

When dealing with 50 Macintoshes, I need a font solution that minimizes my labor in keeping all font setups identical. *Font Reserve* provides three ways to help. The first is the ability to copy the font database from one computer to another. This not only transfers fonts but also the sets and ones designated as permanently active.

AppleScript, while it has a steep learning curve, provides a way to update the *Font Reserve* database. You can use write AppleScripts to change its configuration and add and remove fonts.

The last tool to discuss is the ability to export and import sets. While an exported set does not hold the actual fonts, if you import a set and have the required fonts, you can easily duplicate the way in which *Font Reserve* organizes fonts on different computers. If *Font Reserve* is set up using the alias method, font sets can be easily moved to other font databases, ensuring that fonts are organized in a consistent manner.

All is Not Rosy

Turning automatic activation on can corrupt the Database Prefs file. If this file is corrupted, the Macintosh will crash on bootup. This happened to me twice in two weeks. It took me an hour when this happened the first time to determine the problem. *Font Reserve* needs to better handle corrupted prefs. This problem does not occur with the *Font Reserve XTension*.

Font Reserve demands megabytes of RAM. Graphics professionals probably have adequate RAM on their computers, but PowerMac 6100s with only 16MB RAM will definitely have problems. DiamondSoft recommends reserving 6MB of RAM for *Font Reserve*. The *Font Reserve* application, which is constantly running, wants 4-6MB of RAM by default on a PowerMac, depending on whether if virtual memory is on or off. But additional RAM is required by the MacOS if you activate many fonts, and the Browser prefers to use 2-4MB when it is open.

Font Reserve has a solid design, but it still needs some work on implementation. It takes longer for *Font Reserve* to activate fonts than a beta of *Suitcase 8*. Adding fonts to its database also requires you to wait but this is partly due to its error checking procedures.

Auto font activation still needs work. The XTension works the vast majority of the time but not always. Regular font activation does not work in all applications, but this is partly

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"Font Reserve gains its power and flexibility from its font oriented database. While it can manage font suitcases like its competitors, it is designed to work with individual typefaces. It provides font information, such as family and foundry."

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due to the variety of ways that different applications work with fonts.

Finally, *Font Reserve* uses a serial number-based copy protection scheme. If you do not enter its serial number, it will work in demo mode. As a Macintosh manager, my biggest complaint about serial numbers is the need to find them every time I set up a computer. Fortunately, DiamondSoft sells multipacks that allow multiple copies to share the same serial number.

Support

DiamondSoft provides support through phone, e-mail, and its web site. I sent e-mail to their technical support staff and they responded within a few hours. When I had problems with the *Font Reserve XTension 2.01* they e-mailed me a beta of version 2.02, which solved the problem. While they could not solve my problem of activating fonts in EPS files as they are imported into *QuarkXPress* documents, they were quick to give me an estimate on when a new version should be available.

Their web site support is not so good. They have some tech support discussion groups on their site but most questions appear to remain unanswered. Maybe their response rate was better than it looked, but some discussion threads were broken, and the slow speed of their web site discouraged me from exploring the discussion groups.

Pricing and Availability

Font Reserve 2.02 is listed at $99 per copy, but discounts of up to 35% are available for multiple licenses. *Font Reserve* can be purchased from major mail order and Internet Mac software web sites or directly from DiamondSoft. Upgrades from *Font Reserve 1.x*, including copies bundled with CoralDraw, are $65. If you purchase directly from DiamondSoft, you can download the software from their web site and still receive the CD-ROM and manuals, which include Bitstream fonts.

Try Before You Buy

DiamondSoft allows you to download the entire copy of *Font Reserve* from their web site, including the XTension and the manuals. Until you enter the serial number the database will be limited to tracking 100 fonts. All other features are available. This is a great way to test *Font Reserve* for suitability and any possible software conflicts.

"Font Reserve provides the ability to easily activate and deactivate fonts as they are needed, but it goes beyond Suitcase and Adobe Type Manager Deluxe by providing more font management tools."

Conclusions

Font Reserve's ability to find corrupted fonts and its database make it a true font *management* program. While it has a few problems, it is a stable product that does what it states it does. While its interface is more complicated than those of *Adobe Type Manager Deluxe* or *Suitcase 3*, it also does more. It provides more than one way to deal with fonts that meets the needs of different users.

The font management software market is once again heating up. By the time you read this *Adobe Type Manger 3.5* and *Suitcase 8* should be available. Both products promise to provide stiff competition to *Font Reserve* and *Suitcase 8* is will have some nice new features. But *Font Reserve's* database distinguishes from its competitors for those Macintosh users who need to constantly activate and deactivate fonts on a frequent basis.

System Requirements: 68040 or PowerPC processor, MacOS 7.5 or later, including MacOS 8, 8.1, and 8.5. 6MB RAM recommended. ∎

Paul Chernoff spends his days writing databases at The Washingtonian when not busy helping people with QuarkXPress, fixing network problems, working on the Internet, or taking care of the servers. He is lucky to be doing most of his work on a Mac. At home, he balances time between Mac and family. He can be reached at paul.chernoff@tcs.wap.org.

Fonts: A Quick Overview

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WHEN THE Macintosh was introduced in January 1984, the first thing users noticed were the fonts. Prior to the Macintosh, computers generally displayed everything on screen in a single, monospaced font. In contrast, most of the Macintosh "city" fonts (Athens, Chicago, Geneva, London, New York, San Francisco, Venice) were proportionally spaced fonts, and only one — Monaco — was a monospaced font. Almost overnight, the Macintosh became a darling of amateur typographers, and hundreds of shareware fonts sprang into being.

A couple years later Apple introduced PostScript printing with the LaserWriter, and typography *really* took off. The LaserWriter was capable of reproducing commercial-quality printing, and the original "city" fonts were banished, replaced by Avant Garde, Bookman, Courier, Helvetica, New Century Schoolbook, Palatino, Symbol, Times, and Zapf Chancery.

Progress, however, often has casualties, as it did this time: the very simple Macintosh now seemed to be beset by all kinds of font confusion. New York looked much like Times, Palatino, Bookman and New Century Schoolbook. Are they really that much different?

Similar But Not Same

In a word, yes, they are quite different. New York was designed to look good on the Mac's screen, and is too large when printed on paper. Bookman, New Century Schoolbook, Palatino and Times are all serif fonts, but they look quite different if you look at the details. Since literate readers read by shape, rather than letter-by-letter, even subtle changes in the shape of characters can create a radically different look.

There are many different ways to classify fonts, but the most basic classifications are serif (letters have slight projections at the end of strokes) and sans serif (letters *don't* have anything on the end of the strokes). Generally speaking, sans serif fonts are good for headlines, signage (traffic signs are

Monospaced: Courier

IIIIIIIIIIIIIIIIIIIIII

WWWWWWWWWWWWWWWWWWWW

Proportionally Spaced: Times

IIIIIIIIIIIIIIIIIIIIIIIII

WWWWWWWWWWWWWWWWWWWW

π

always sans serif), and anything but long passages of text. Serif fonts, on the other hand, are ideal for body copy; virtually all books, magazines and newspapers are printed in serif fonts.

Once you master differentiating between serif and sans serif fonts, you'll soon realize that, while most fonts fit in one or the other classification, some don't. The five biggest exceptions are: script, casual, decorative (or novelty), grunge and dingbat fonts. Script fonts, as the name suggests, are evocative of formal hand-written script, only written by a perfect master penman. They are sometimes used in advertising, and frequently used on wedding invitations. Because they are harder to read than serif or sans serif fonts, they should not be used for body copy, unless you really don't want people to read your text.

Casual fonts are similar to script fonts, but not as precise and regular. A fairly recent innovation, casual fonts are designed to look as if they were handwritten. They are sometimes used in advertising (to give an ad or letter a "personal" look), and often used by individuals who want to write letters on a computer but make the printed version look more intimate. Well-designed casual fonts are designed to be highly readable, but you still probably wouldn't want to use one to publish a book.

Decorative fonts tend to be harder to read, but reflect the old tradition of lettering as art and decoration. Aside from advertising and informal display signage, decorative fonts should be avoided. Grunge fonts, a fairly recent innovation, are "anti-fonts;" irregular lettering designed to impart an impression of rebellion, alienation or sometimes an anti-technology look. While *Wired* magazine seems to be fond of grunge fonts, generally speaking they have no real purpose outside of rare use in advertising and signage, such as, possibly, an advertisement for a riot or a grunge rock concert.

Dingbats, sometimes called "ornaments," are fonts that are *not* letters or standard type but, rather, pictures of some sort. The most popular dingbat font is probably Zapf Dingbats, though the Windows Wingdings and original Macintosh "city" fonts Cairo and Mobile are also dingbat fonts. Since dingbats are not letters, you can't use them for text; instead, they are used to emphasize the text (such as the various bullets in Zapf Dingbats) or illustrate something (such as the map symbols in Carta).

Essential Fonts

Macintosh computers are easy to customize, but one distressing way to "customize" your Macintosh is to throw away critical fonts. Every Macintosh needs three fonts to operate: Chicago, Geneva and Monaco. These three fonts are used in menus, file names and listings. Mac OS 8.5 adds some additional menu fonts: Charcoal, Capitals, Gadget, Sand, Techno and Textile.

Those with PostScript printers also need to retain several fonts that are built-in to virtually all PostScript printers: Avant Garde, Bookman, Courier, Helvetica, New Century Schoolbook, Palatino, Symbol, Times, Zapf Chancery and Zapf Dingbats. Adobe Type Manager (ATM) adds two fonts of its own that don't show up in any on-screen menu listing: Adobe Sans MM and Adobe Serif MM. These two fonts are used to "fake" missing fonts in certain cases.

Be very careful about throwing away "unnecessary" fonts. Many

ITC Bookman light
Washington Apple Pi
Apple Garamond
Washington Apple Pi
New Century Schoolbook
Washington Apple Pi
Palatino
Washington Apple Pi
Times
Washington Apple Pi

people think the "extra" fonts take up memory (not really) or extra disk space (they do take up disk space, but huge disk drives are very inexpensive). It can be very frustrating, trying to find out why someone's computer isn't working properly, only to discover the cause is a font thrown away as "unnecessary."

Recommendations

Typography is a subject as broad and as deep as you wish to make it. There are countless books on the subject, and entire magazines devoted to the subject. But here are some easy guidelines to good typography:

■ Don't write in "City" fonts, such as Chicago, Geneva, Monaco, New York, etc. These were designed for use on a 1984 Macintosh using a 1984-vintage ImageWriter I dot-matrix printer. Unless you are still using this combination, move on to something more advanced.

■Don't write anything in New York. Many people like New York because of the large size on screen, but when it is printed on paper it looks ungainly and way too large.

If you want to increase the size of text on screen, Microsoft *Word 98*, Corel *WordPerfect 3.5*, and *AppleWorks/ClarisWorks 5.0* allow you to increase the size of the manuscript image on screen without increasing the printed font size.

■Don't' write anything in Courier. Courier was designed for use on an IBM typewriter, probably before you were born. Because it is a monospaced font, your eye must travel farther to read a given piece of text than the same text written in a proportionally spaced font. Aside from columns of numbers, Courier should be avoided.

■Use your computer as a computer, not a typewriter. Terminal punctuation — periods, exclamation points, and question marks — should be followed by one space, not two. In fact, nothing should be followed by two spaces. Line things up with tabs or tables, not spaces. On the Macintosh, spaces are proportional, too, and not always the same width.

■Experiment with your printer. Try printing text in different colors, even if it only has black ink or toner. Try printing text in different sizes, with different fonts. Learn what looks best with your particular mix of printer and computer.

■Generally speaking, use no more than two fonts in any given publication. If you mixed too many font styles in a paper, brochure, or flyer, it tends to look more like a ransom note than a professional-looking paper, brochure or flyer. (In the early days of the Macintosh, most Mac user group newsletters looked like ransom notes, with dozens of typestyles thrown together.)

Notes

The accompanying illustrations were all created using PostScript fonts, mostly from Adobe's collections but also from other sources. Some notes about a few of the fonts:

■ Russell Oblique was created by Pi member Karen Ackoff. This casual (or informal) font is patterned after her father's precise, careful style, used for documenting technical drawings. She noted that "you might notice if you look carefully, that the tops of strokes show a slight increase in width...this actually stems from the fact that when I first wrote out the alphabet by hand, I was using a Rapidograph technical pen that leaked. So each stroke started off with a slight flooding of ink, hence the slight thickening at the beginning of each stroke." (This probably won't show up in the *Journal* reproduction, but it adds a slight calligraphic flair when you use it for a letter.) It is licensed by Adobe through Alphabets Inc. You can find the relevant Adobe Web page at: http://www.adobe.com/type/browser/P/P_449.html

■ Apple Garamond is the "corporate typeface" of Apple Computer. It is a slightly modified version of Garamond Condensed, created by Bitstream for Apple. For an example of Apple Garamond, just look at the name of your computer on the front of your Mac (assuming, of course, you have an Apple Macintosh and not a clone). Garamond Condensed is available from Adobe, and with it you can do a very good job of faking Apple's "corporate typeface."

■ Reporter Two, available from Adobe, is a very bold script font used for several years in Washington Apple Pi Garage Sale flyers.

Serif: ITC Bookman medium

Washington Apple F

Sans-Serif: ITC Avant Guard Gothic

Washington Apple Pi

Sans-Serif: Helvetica

Washington Apple Pi

■ Rage Italic, from the Swedish company Esselte Letraset, is another nice script font. For many years this was used in the logo for the San Diego Macintosh User Group magazine, *Resources*. It is available from International Typeface Corporation (ITC), http://www.itcfonts.com/

■ Times, one of the most widely used fonts in the world, was created for the body text of *The Times* of London. All PostScript printers include Times as a standard font, and a variant, Times Roman, is the default font on all non-PostScript laser printers by Hewlett-Packard and Canon.

■ Electroharmonix is part of a huge collection of PostScript fonts created by Ray Larabie. They are all free, provided you don't bug him with any questions about them. If you look carefully, you can find this font used on the Pi's Web site, http://www.wap.org/

■ New Century Schoolbook, one of the fonts built in to virtually all PostScript printers, has been until recently, the standard body text font for the *Washington Apple Pi Journal*.

Resources

Fonts play a large role in the Macintosh world. If you want to know more about them, run out and get a copy of Robin Williams' book, *How to Boss Your Fonts Around*, 2nd ed. Subtitled, "A primer on font technology and font management on the Macintosh," this richly illustrated, literately written book will tell you vir-

tually everything there is to know about using fonts on a Macintosh. Robin covers the various types of Macintosh fonts (bitmapped, TrueType, PostScript), details how to properly install and maintain font collections, and covers a huge range of freeware, shareware and commercial font utilities. An extensive (32-page) glossary translates font terminology into something non-specialists can understand; even the glossary is illustrated.

Just as well written and illustrated, but with a different focus, is Robin Williams' *The Non-Designers Type Book.* Covering both Macs and Windows machines, this book is a companion to her superb *The Non-Designer's Design Book,* aimed at helping non-specialists create snappy-looking, professional documents through intelligent typography. Though it is a book an "average" user will find quite enjoyable and useful, the world would be a much better place if some professional designers would also read it...

Given the shocking number of people who still write everything in Courier (or Monaco, or Chicago), and still put two spaces after a period (just like they were taught in typing class, thousands of years ago), there is still a vast audience for one of Robin's first books, *The Mac is not a typewriter.* Published in 1990, this slender volume offers simple, expert advice on how to type your thoughts into a state-of-the-art Macintosh without it looking like something produced on a battered Smith-Corona manual typewriter.

A note to potential quibblers: Lawrence Charters does know the difference between a font, a typeface, and a letterform, but decided to use the generic Macintosh term, "font," rather than devote this entire article to explaining the differences.

Robin Williams, *The Mac is not a typewriter,* Peachpit Press, 1990, 72 pages, $9.95
Robin Williams, *The Non-Designer's*

Type Book, Peachpit Press, 1998, 239 pages, $24.95
Robin Williams, *How to Boss Your Fonts Around,* 2nd ed., Peachpit Press, 1998, 188 pages, $16.95

Script: Boulevard

Washington Apple Pi

Script: Reporter Two

Washington Apple Pi

Script: Rage Italic

Washington Apple Pi

Script: Mistral

Washington Apple Pi

Script: ITC Zapf Chancery

Washington Apple Pi

Script: Nupital Script

Washington Apple Pi

Casual: Russell Oblique

Washington Apple Pi

Decorative: Electroharmonix

ШAБhiПᏩ+ᏫП AᏢᏢᏞᏋ ᏢᏏ

Decorative: Toolbox

WAS-H-iNGT⊛N APPLE PI

Grunge: Eraser Dust

WASHiNGToH APPLE Pi

Dingbat: ITC Zapf Dingbats

✳❀▲❇✣■✳▼❏ ✡❑●❁ ☆

Dingbat: Carta

🍁 ⚓ 🛡 ⚛ ⬆ ◉○ ❄ ◇ □★ ▽

Adobe Premiere 5
The Trials of Being New

By Dennis R. Dimick

PREMIERE 5 has the makings of a great software program. As the first program to use QuickTime, Adobe Premiere has since become the leading full-featured movie-editing program on the Macintosh. It has been a pivotal creative tool of mine for nearly six years.

The most recent prior revision, Premiere 4.2, proved itself a solid editing platform that offers amazing creative options for making QuickTime movies. If someone said I could use only one program, my choice would be Premiere 4.2.

As a result, my expectations have been pretty high for the latest 5.0 release. Nearly every review in the Mac press since 5.0's arrival last spring made me believe the new Premiere's greatness was akin to that of sliced bread.

Perhaps these reviewers got a different program than the one I bought. Maybe their candor was tempered by having received a free review copy, or their publication got loads of advertising money from Adobe. I paid $190 for my upgrade to 5.0 from 4.2.

Premiere 5.0 was rewritten from the ground up, and it has performed like a program released before it was ready. One must assume marketing schedules and quarterly NASDAQ stock market revenue reporting demands drove timing on the new 5.0 version release, not whether Premiere 5.0 was fit.

Adobe Systems last fall released a free Premiere 5.1 update that has improved on the instability, slowness, and poor implementation. It is possible now to say that Premiere 5.1 shows promise.

Now Premiering

My first movie-making experience began with Premiere 3.0 in 1993 on a Mac IIci with QuickTime 1.6 and Sigma Designs' "MovieMovie" card. A year later SuperMac's Spigot II Tape card replaced MovieMovie in my setup. Premiere 3.0 provided the software tools to capture video, and to assemble and edit movies via QuickTime. The Spigot II card provided hardware support to bring video signals into the Mac and out to TV and VCR.

People were amazed these movies were made on a computer, let alone a Mac IIci. I was. Though these rough-hewn flicks were really quarter-screen playing at a half-speed 15 frames per second, they dazzled mostly because they existed at all.

The years since have seen

Greetings: Premiere 5.1 shows you this screen at launch. If you get hold of Premiere 5.0, go to Adobe's website and get the free update file. The updated 5.1 is more stable and useful.
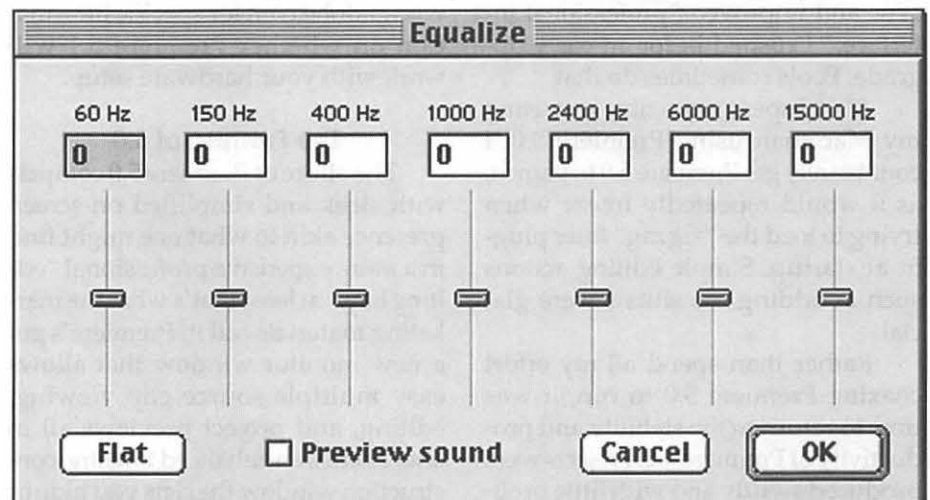
Audio Tools: Premiere 5 offers an array of audio tools including the new "Equalize" filter that lets you customize the tonal range of an audio track. Premiere supports up to 99 separate audio tracks in a movie.

QuickTime, Premiere and hardware improve. After the Mac IIci there was a PowerMac 8500 with built-in AV capture. Later a miroMotion DC-20 M-JPEG compression capture card was added to the 8500. Now my movie machine is a closeout-priced PowerMac 9600/350 with a Media 100qx card and QuickTime 3.0.

In today's market of blue and white PowerMac 400 MHz G3 towers, my hardware is nowhere state-of-the-art, but video quality from the Media 100qx card is beautiful. This setup is stable, and it's pretty fast for most tasks. Premiere 4.2 on my 9600 is whip-fast, Premiere 5.1 on this setup is not so fast. At least 5.1 doesn't crash as much as 5.0 did.

Even with its limitations, Premiere 4.2 has been a reliable tool for producing short-form QuickTime-based digital movies. It has anomalies, such as the not insignificant failure to maintain lip-synch on audio over time. When Adobe announced Premiere 5.0 last year with promise of true audio sync and improved "professional interface," I rushed in for an early upgrade. Fools sometimes do that.

Alas, I spent more time restarting my Mac than using Premiere 5.0. I could rarely get Premiere 5.0 to launch, as it would repeatedly freeze when trying to load the "zigzag" filter plug-in at startup. Simple editing actions such as adding transitions were glacial.

Rather than spend all my effort coaxing Premiere 5.0 to run, it was time to return to the stability and productivity of Premiere 4.2. Projects were produced swiftly and with little problem.

Since the Premiere 5.1 arrived, it's possible to use 5.1 without fear it will
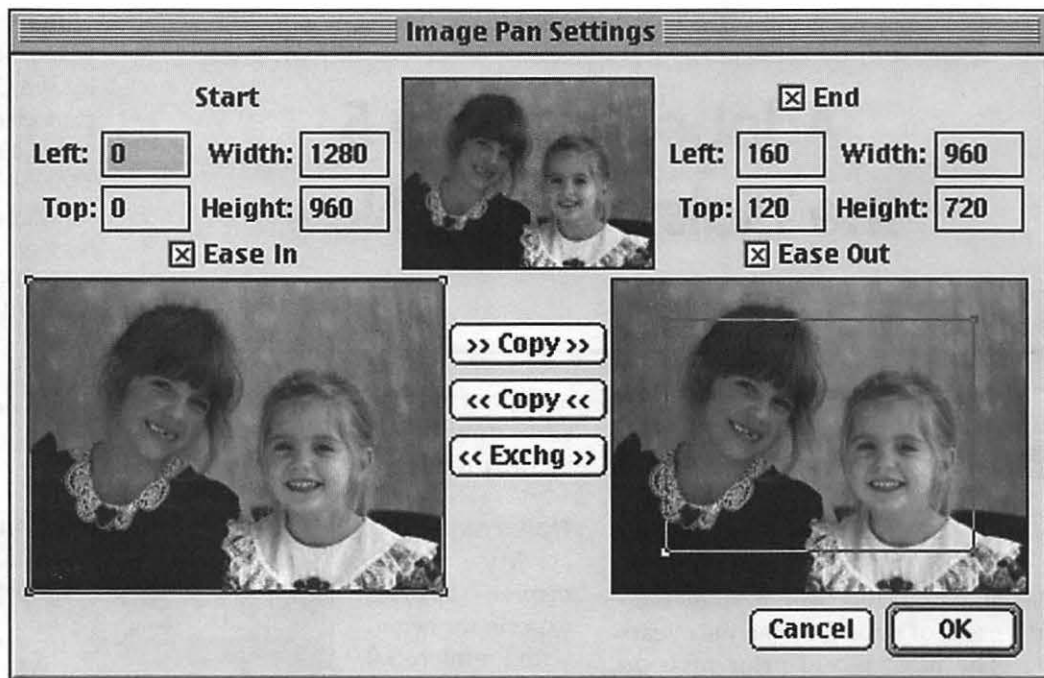
Pan and Zoom: Premiere's Image Pan filter allows you to create motion across still images. You assign start and end framing on the image and Premiere will create all the intermediate framing.

randomly destroy projects, at least most of the time. Just assure that your Mac and video capture card's drivers are supported by this latest Premiere release. If, for example, you are planning to use cards such as the miroMotion DC-20 or older Radius or TrueVision Targa cards, you will be out of luck. Check Adobe's web site www.adobe.com for specific information on whether Premiere 5.1 will work with your hardware setup.

The Promise of 5.0

The allure of Premiere 5.0 compels with sleek and simplified on-screen presence akin to what one might find in a more expensive professional "editing bay," at least that's what the marketing materials call it. Premiere's got a new monitor window that allows easy multiple source clip viewing, editing, and project previews all in one. There's an enhanced timeline construction window that lets you hide or lock tracks. A navigator palette like those found in PhotoShop and Illustrator makes for easy movement along

the whole project timeline, even on a small computer screen.

There's compatibility with PhotoShop filter plug-ins, a host of new audio filters and effects, and an improved ability to manage, sort, and search on project source clips in multiple "bins." Premiere 5 finally offers scrollable text in title windows and offers "keyframeable" effects that you can vary repeatedly within a single transition or filtered clip. The keyframe effects feature alone is worth the price of the upgrade.

This shopping list of 5.0 enhancements alone would provide a formidable challenge for engineers designing an upgrade, let alone a complete program rewrite. The superficial and interface improvements are wonderful.

New clip bins offer improved data management, and it's easy to sort and filter by many parameters besides time-code. The new look is elegant, and Premiere 5.0 offers a "three-point" editing metaphor that means you can edit a clip to a length so to fit an exist-

ing hole in the project timeline. Premiere also supports "Control Key Desktop Menu" options available since Mac OS 8.0. This new feature enhances editing speed by simplifying navigation and tool choice.

Though Premiere 5.0 released months after QuickTime 3.0 it was only compatible with it, and did not specifically support any of QuickTime's new features. Audio compression options that QuickTime has supported for years were still lacking, and none of the transition effects or video filters supported inside QuickTime 3.0 were recognized.

Premiere 5.1 now supports several QuickTime-based audio compression codecs on export, but we still await a promised plug-in from Adobe for support of QuickTime 3.0's many internal transitions and video effects such as "Aged Film."

5.1's Fulfillment

Regardless of support for features in QuickTime, stability and speed remain my main concerns about Premiere 5. I've constantly struggled with 5.1's video capture fragility; a challenge Premiere 4.2 handles like a rock. Sequential video captures in 5.1 have crashed my Mac, and the program

freezes for no apparent reason while creating preview files. This all while I'm using latest version Media 100qx drivers, a simplified Mac OS 8.1 with hardly any extensions, and a rigorous

use of disk management utilities to assure system order.

Since Premiere 4.2 allows me to capture at will, it's possible to use Premiere 4.2 for video capture and follow
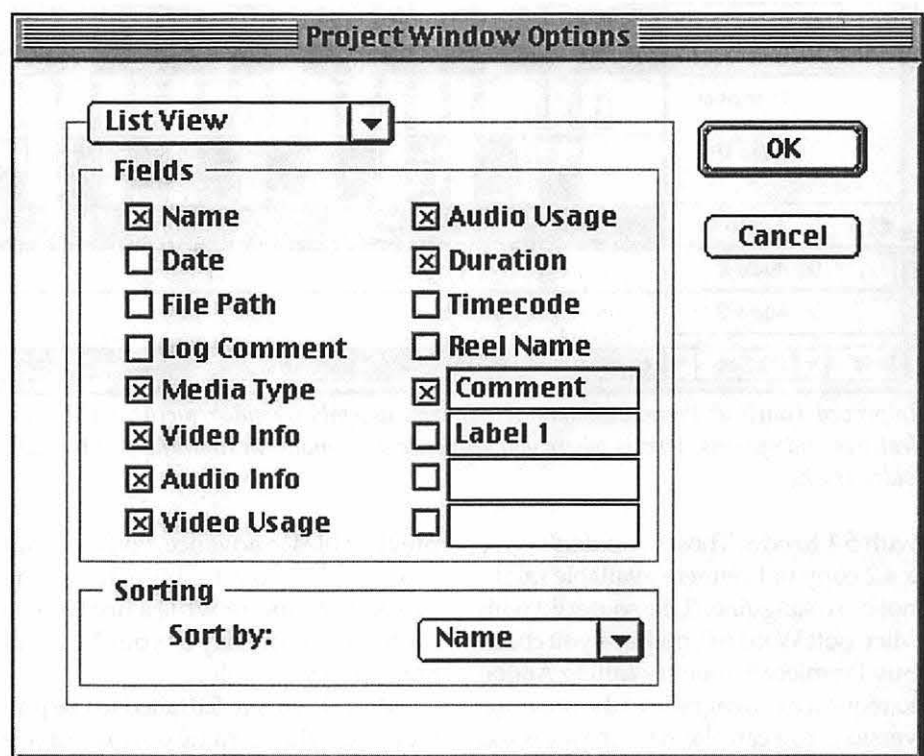
Assigning Qualities: You can customize the information presented in the Project Window with these options in the Project Window setup screen. These additions make Premiere's data management tools more powerful.
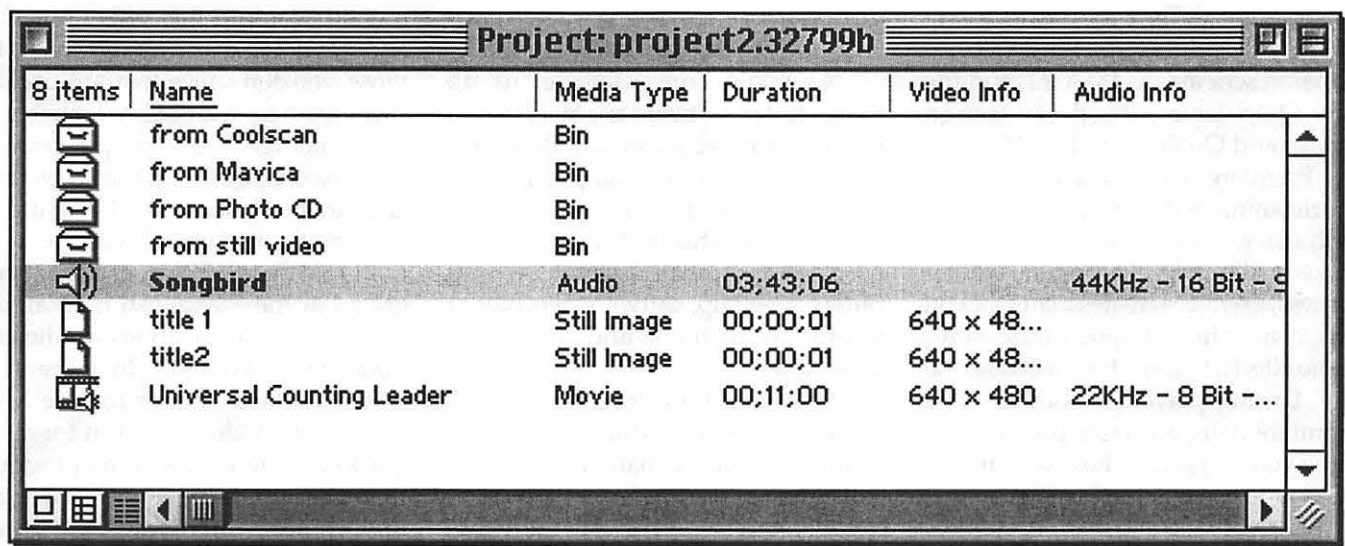
Data Management: Premiere now offers detailed options for assembling media files into projects. You can store source material in different "Bins," according to media type or personal preference.
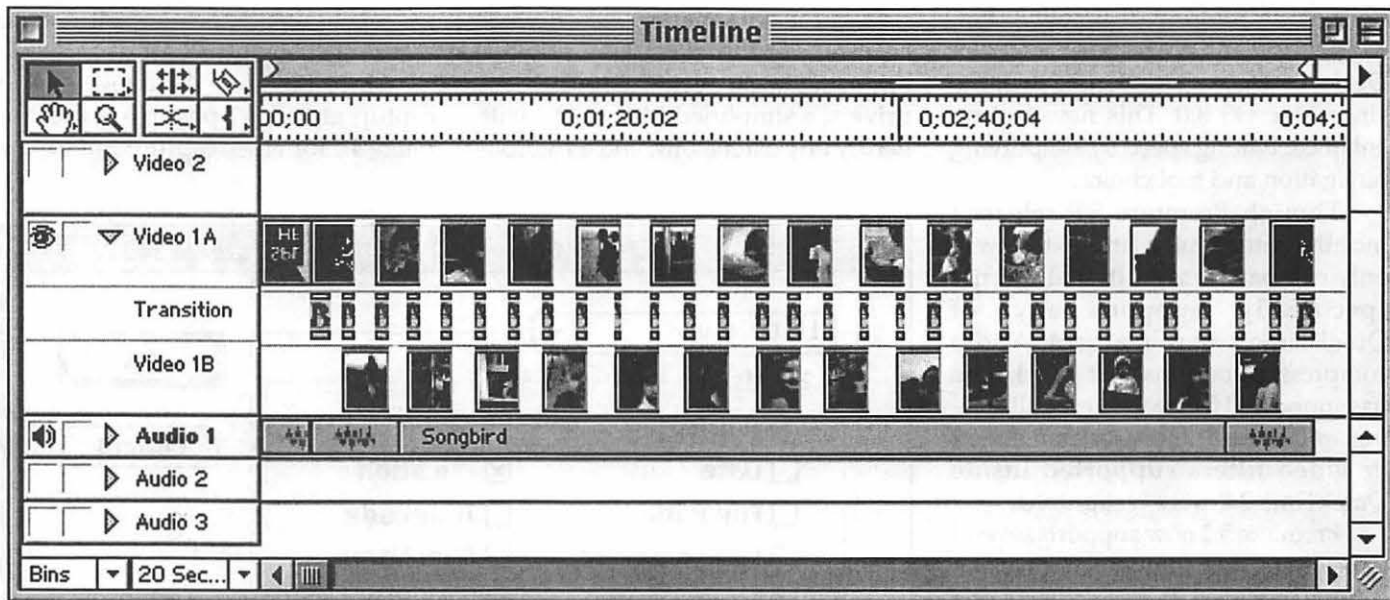
Improved Timeline: Premiere's main window for assembling video, pictures, titles, and audio into a movie has been given new features and options. This is where you sequence your movie in time and add transitions and filters. It's possible to have up to 99 video tracks.

with 5.1 to edit. Those who don't have a 4.2 copy of Premiere available might not be so sanguine. (Like some did with Microsoft Word 6.0, perhaps you could buy Premiere 5, then try calling Adobe to request a downgrade to the previous version. You can claim your Mac is too slow, or something akin to that.)

Premiere 5.1 finally offers the core audio compression tools QuickTime has offered for years. Now you can export a QuickTime movie from Premiere 5.1 using various audio compression schemes as IMA 4:1, and the new QuickTime 3.0 codecs Qdesign Music, and QualComm PureVoice.

Premiere 5.1 also fixes a design shortcoming in Premiere 5.0 that deals with using preview files from disk to make final movies. During the editing process, Premiere creates many files on disk containing compiled transitions, audio effects, fades, filter effects and the like. During playback from timeline Premiere calls on these previews to show you in real time how your movie looks as you edit and play back.

Premiere 4.2 (and earlier versions) use these preview files when writing out a final movie file. If you properly configure preferences and compile preview files in advance, you can print movies directly to tape from the project timeline, or write a final movie file to disk as quickly as your Mac and hard drives are able.

Alas, Premiere 5.0 failed to use preview files when writing out final movie files, and a task that previously took a few minutes could take hours. Thankfully Adobe's engineers fixed this design oversight with Premiere 5.1.

Not So Fast

As faster computers let us do things faster, software engineers write in more features so we can do things not possible before. Computers slow down because they're asked to do more at once. This repeating cycle has become a cyclical market mantra: computers speed up, software gets bigger with more features, and computers slow down.

This holds for Adobe Premiere 5.1 and its forebears. Productivity must be examined in more than one way, and as we move ahead we've got to be willing to take a step back. Are more features better when programs run at half the speed as before? Why don't the software program marketers also tout stability and swiftness as "features"?

Have we (long past) reached a point with software where new features are added for the sake of cyclical upgrade income and an implied requirement we buy a new computer each year just to stay where we were speed-wise?

Challenge for the New

It's possible to say Premiere 5.1 is a good program that offers potential and leave it at that. The rub comes for those who don't have access to an older Premiere to compensate for Premiere 5's shortcomings. These people want to start making QuickTime movies now, and Adobe Premiere 5.1 is what they must buy if they want Premiere.

Once there were more editing programs in the Macintosh market, but mergers and acquisitions on the corporate side have left Adobe Premiere as the de-facto leader for the Mac. (Strata sells VideoShop, but for all its quirks Premiere is the better program. If you're into the new DV format, editing choices from Radius and others are also available.)

At heart Premiere is a wonderful piece of software. The feature set is

amazing. I've now produced several movies with Premiere 5.1, and can say it has an elegant feel. It still runs slowly on my Mac, especially as projects get complex, and 5.1 still fails much too often to be called reliable.

If you haven't used Premiere before and can find a discount-priced new copy of Premiere 4.2, consider that. The older version has shortcomings, but if you want to start in QuickTime editing, 4.2 appeals. Premiere 5.x may have its bugs squashed by the time you are ready to move up.

Let's hope Adobe is working on a Premiere 5.2. I'm not looking for new features, just a stable and fast program where the offered features work reliably. I'd love to say Premiere 5.1 is the best Premiere yet, but for now my vote still goes to Premiere 4.2. ∎

Pi member Dennis Dimick pursues QuickTime as a hobby. He has written for The Journal on graphics and multimedia subjects since 1992 and can be reached via email: ddimick@aol.com.

Adobe Premiere 5.1
Adobe Systems, Inc.
345 Park Avenue
San Jose, CA 95110
Retail Price $895
Upgrades $199

www.adobe.com

Requires a PowerPC
   Macintosh
Mac OS 7.5.5 or later
Premiere 5.1 requires
   QuickTime 3.02
48 MB or more application
   RAM recommended
Large capacity disk drive or
   RAID array
24-bit color display adapter
Compatible QuickTime cap-
   ture card drivers required.

Poser 3

by Stuart Bonwit

POSER 3 IS a posing and animation program for human and animal figures. It has come a long way since I reviewed *Poser 1.0* in the May/June 1996 issue of the Pi *Journal*. *Poser 1.0* did not do animation and the figures ported to an animation program could only be animated there. *Poser 3.0* figures can be animated in *Poser 3.0* and can be ported to *Ray Dream Studio 5*, a modeling and animation program, and retain their animated features. Both *Poser* and *Ray Dream* are products of MetaCreations.

Amazingly realistic figures can be created and manipulated in *Poser 3.0*. Installation is a snap, as one would expect on a Mac. The first thing the manual tells you to do is to increase the memory allocation as much as possible. Use of virtual memory is recommended. I allocated all

but 1.5 MB to *Poser* and found I couldn't open *WordPerfect* to write the review as I went along. I dropped the allocation down to 45 MB.

Opening *Poser* brings the intro title page very artistically enhanced with dissolving titles. Then the Workspace appears, Fig. 1. It doesn't surprise you that it occupies the *entire* screen because you just read that in the User Guide Overview (didn't you?). You don't even see the menu bar; however, you can bring it into view by moving the cursor above the Workspace.

All the Workspace feature titles are in a dull gray until the cursor touches them. Then they light up bright white. In Fig. 1 the cursor is on the title "Editing Tools" seen lit up at the top center of the figure. The
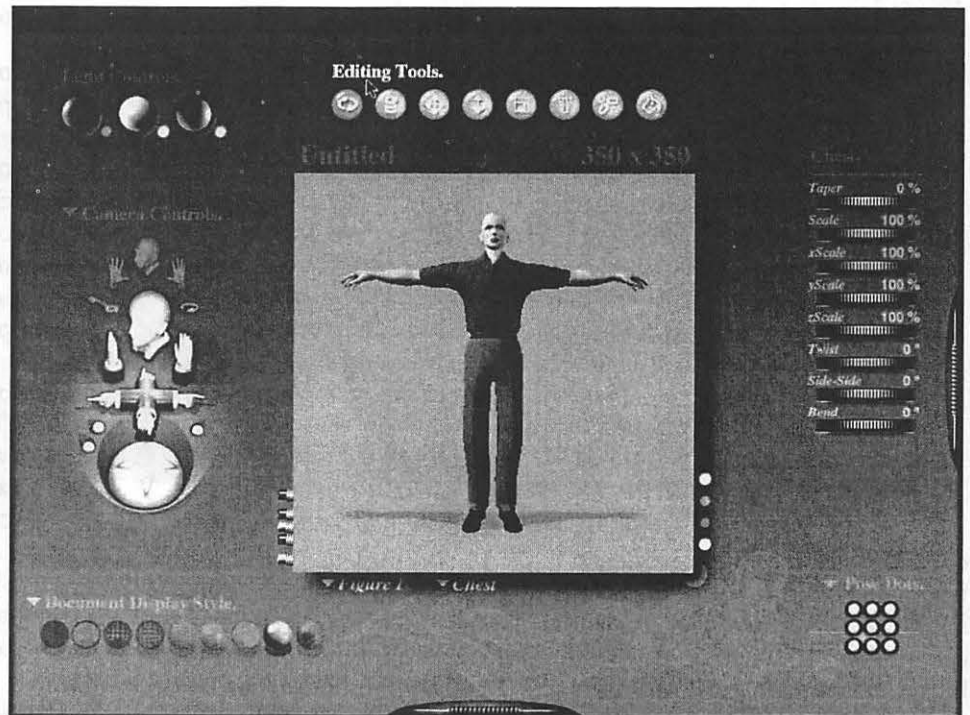
Figure 1.

Figure 2.
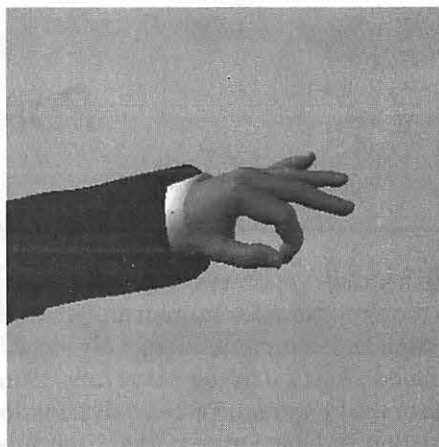
Figure 3.
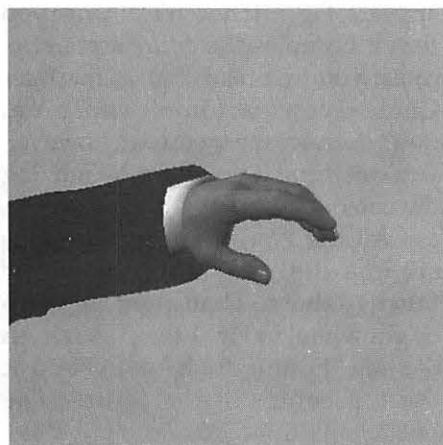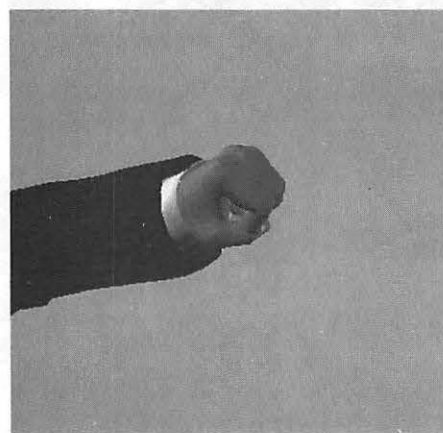
Figure 4.

Figure 5.

Figure 6.

Figure 7.

controls for three lights are seen in the upper left. The center light is bright shining from the upper left which you can confirm by looking at the figure in the center. The camera controls are at the left. There is a choice of preset camera angles and shooting distances plus complete control of X Y Z position and 3D rotation. In the lower left are the display styles ranging all the way from block outline through several wire frames to increasing qualities of rendering. Below the figure you may see that the Chest has been se-

lected. It can be manipulated by dragging in the figure or by the Parameter Dials at the right which give very precise control. The temptation to play with the controls (before reading the manual!!) is overwhelming!

The Tutorial is straightforward and easy but it is laden with "land mines," tempting options that lead you astray. The human male figure in Fig. 1 is the default figure. During the course of the Tutorial, I wound up with Fig. 2 Posed Figure/Dog. The posed figure, the "Business Man," is one of many available the *Poser* library. The library is available by clicking the handle at the extreme right of Fig. 1. The library also has several animals. In posing the man I changed the angles of both thighs and shins and both feet. I changed the "poses" of the hands selecting from the library of hands. Figs. 3, 4, and 5 show the basic hand, a fist, and the OK sign. However, the hands can be modified by changing the angles of each of the joints on every finger and thumb to create any desired gesture. (What this will do to make the ballerina's gestures more graceful is almost unbelievable!)

The thing that really bowled me over was Poser's facility with facial expressions. Fig. 6 is a close-up of the basic Business Man's face with one of many "hairs" from the library. I changed the color of the hair from the original green to a dark brown. I found how to do it with the help files. I'm sure later in the Tutorial this will be explained. Fig. 7 Wink and Fig. 8 Horror are two of many expressions in the library. And it is possible to create an infinite variety of expressions by manipulating the eyes, eyebrows, lips, mouth, tongue, etc. There is also a library of facial expressions corresponding to phonemes, i.e. basic speech sounds. Fig. 9 shows the man saying, "O." (This will come in very handy for my animation of the opera diva singing an aria.)

Fig. 10, Head (Parameter) Dials 1, shows facial expressions that can be manipulated, but I could not see any dials to move the head. When the de-

Figure 8.

Figure 9.

fault figure is brought up, there are head moving dials but no facial expressions. I confirmed that in the manual. I drafted an e-mail letter to MetaCreations Support to ask about it. I also wanted to know how the wink was created since I saw no controls for the eyelids. The manual says, under Blink, to set the Blink Parameter Dial to 1.0 to close the eye. Where is that? The hint was that the Blink dial was described right after the Worry Left dial seen in Fig. 10 at the bottom. (Note: Ignore those nine dots; they can be preset to control camera views.) I found that I could "grab" the Parameter dials and drag them up so that I could see the rest of them (but I was unable to find any mention in the manual of moving the dials). Voila! Fig. 11 shows the rest of the dials. And, what do you know, there are the Blink

dials and the head motion dials. I scrapped my e-mail letter!

I have gone through twenty of the forty pages of the formal Tutorial. However, I've glanced through and made frequent references to many of the subsequent 130 pages, nine chapters, to get a fair idea of what's possible - and that includes a lot! My next step is to produce an animation with synchronized voice sound, both speech and singing. One of the things deep into those chapters is the method of synchronizing animation to sound. This can all be done in *Poser* without resorting to Adobe *Premiere*. Wow! Can't wait!

On the advice of MetaCreations Technical Support, I downloaded an upgrade, additional plug-ins, and the *Poser* Advanced Techniques Manual (how much more advanced can they be?) from MetaCrations' Web site. These make it possible to exchange models and animations complete with key frames between *Poser 3* and MetaCreations' *Ray Dream Studio 5*. The unlimited possiblities are now more unlimited!

For the serious animator who wants to work with human and animal figures, MetaCreations' *Poser 3* is certainly a valuable application and I recommend it.

The package includes:

- A 194 page User Guide
- A CD-ROM
- A 6-page reference card

System requirements

- Power Macintosh 603 or later
- System 7.6.1 or later
- 20 MB RAM

(32 recommended)

- 16-bit color display (24-bit recommended)
- CD-ROM drive
- 80 MB hard disk space minimum (Same CD works with Wintel machines.)

Poser 3 is a product of:
MetaCreations Corporation
6303 Carpinteria Avenue
Carpinteria, California 93013 USA
Technical Support:
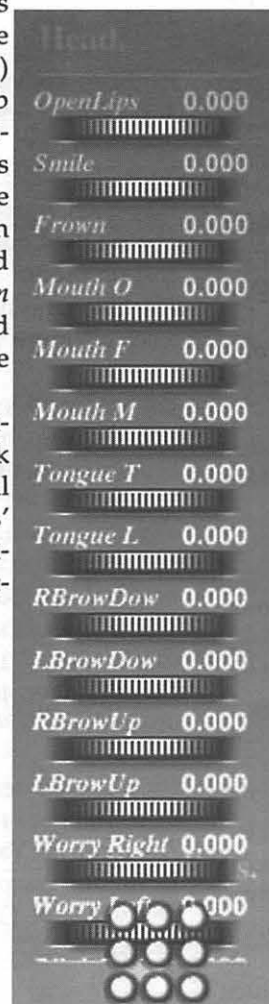 Phone: 408-430-4200
  Fax: 408-438-9672
Web: http://
www.metacreations.com
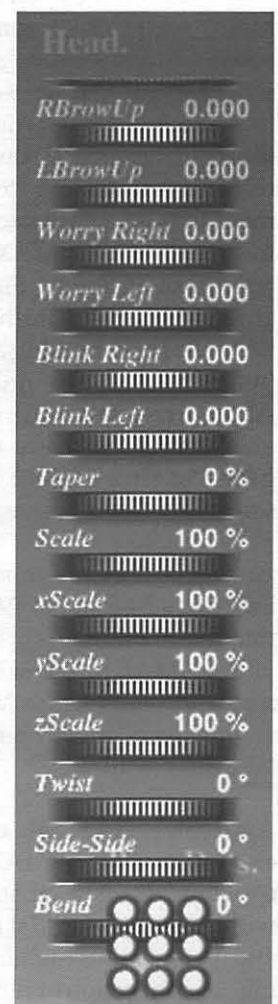List price: $199.

Figure 10.

Figure 11.

π

Best of the TCS

compiled and edited by John Ludwigson

IMAX in the Schools!

Technology marches on, and no-where faster than in the nation's public schools, if you believe everything you read. Herewith some (tongue in cheek) textual criticism.

OBSERVER. The Sunday Washington Post has an article on the front page of the Metro section that compares the second grade classes at a public school and a "charter" school, both in Anacostia. The article is fairly interesting, and I was enjoying reading it until I got to the statement that the charter school plans to give the kids "IMAX" computers to use at home. Sigh. Apparently, neither the author nor his editor knows anything about computers. And a nice little plug for Apple was lost in the process.

Besides, how are those kids going to fit a 50-foot tall IMAX screen into their homes. . . .?

Analyst. >how are those kids going to fit a 50-foot tall IMAX screen into their homes...

An IMAX projector is about the size and weight of a VW bug. It should fit in most homes, if you take out a wall first.

Analyst 2. Did you ever get a closeup look at an IMAX projector in action? It's a fascinating gadget with the film lying flat on platters and an ingenious method of "floating" a long section of film to reduce tension as it goes through the gate.

The Lone Ranger Rides Again!

One of the greatest of all shows on radio or TV was The Lone Ranger, starring Clayton Moore as the Masked Man and Jay Silverheels as Tonto. The Lone Ranger's hearty "Hi Yo Silver....Awaaaay!" still echoes in the memories of those of us privileged to have heard or seen that e-play. Return with us now to those thrilling days of yesteryear as some Pi-sters take their childhoods out for a romp.....

P1. Sixty-six years ago tomorrow (January 30) the Lone Ranger was first broadcast on radio.

P2. >Sixty-six years ago tomorrow (January 30) the Lone Ranger was first broadcast on radio.
Silver, his horse, wasn't broadcast for a couple more years, mostly due to size.

P4. >Sixty-six years ago tomorrow (January 30) the Lone Ranger was first broadcast on radio.
No doubt The Big Broadcast, Ed Walker's old-time radio show, will have some commemoration. Maybe even the original episode, if it is still available. This is always an interesting show. Sunday nights, 7-10 pm. Dramas, like the Lone Ranger, tend to come on starting around 8 or 8:30. WAMU, 88.5 FM.

P5. I fondly remember listening to the Lone Ranger on my crystal radio here in Alexandria, Va. and getting the signal from the very powerful station in Denver, Co. (That was about 1949 or 1950.)
;-)))

P6. Wow! Hey, I thought I was the only

surviving crystal set user in existence!

P7. Well, about 40 years ago I bought a small crystal set for $1. It had a small earphone and a wire with an alligator clip attached which you clamped to a good ground. I usually used the dialer "stop" on a telephone, but water pipes and lightning rods worked well, too. I believe it was the first way I listened to Felix Grant's "Album Sound" show on WMAL, which made me a jazz lover for life.

P8. >I thought I was the only surviving crystal set user in existence!
Nope. I have one too...not as good as the amazing set I once cobbled together with a single transistor as an amplifier, and tuned by a variable condenser rather than by scraping a contact over the coil. The one on my dresser [now] is a kit, but it still amazes me to listen to it...like magic, sound appears from the ether!
The Lone Listener Rides Again! Hi Yo Germanium, AWAY!!!

P4. >Hey, I thought I was the only surviving crystal set user in existence!
Tsk, Tsk. I wasn't even born back when [P5] was listening to his crystal set, but I did the same thing ca.1960. It was great, because the signal was weak enough that I could listen in bed without any noise escaping to warn others that I was not sleeping, as I was supposed to be. And it didn't need batteries! About as close as you can get to something for nothing. :)

P9. Me too. I made a bunch of different models - my favorite was one that used a blue blade double edge razor blade and the lead from a pencil.

P6. Well, greetings to all the crystal seters. I must admit that, as a when-in-doubt-throw-it-out type person, I did not save my crystal sets.

P10. To all old techies. I had a crystal set that I used to listen to late at night

Hotline—The hotline service is only for members of WAP. Please do not call after 9:30 pm or before 8:00 am.

Name	Telephone	Heading	Subjects
Apple General			
Bob Sherman	305-944-2111	Communications	DBMaster
Ron Evry	703-490-1534	Hypermedia	Hyperstudio
Bernie Benson	301-951-5294	Miscellaneous	IIe Card for the LC
Harvey Levin	301-299-9380	Programming	Apple Script
Eric Sheard	908-782-6492	Spreadsheets	Advanced Visicalc (eves) 908-782-6492 (days) -2242
Allan Griff	301-654-1515	Spreadsheets	Apple Works
Eric Sheard	908-782-6492	Spreadsheets	Visicalc (eves) 908-782-6492 (days) -2242
Ken DeVito	703-960-0786	Telecomm	
Apple //			
Bernie Benson	301-951-5294	Accounting	Apple SSC (Super Serial Card)
Neil Laubenthal	703-691-1360	Apple IIGS	General
Allan Griff	301-654-1515	Apple Works	General
Ken DeVito	703-960-0786	Apple Works	General
Paul Campbell	313-255-6497	Apple Works	General
Ray Settle	410-647-9192	Apple Works	General
Allan Griff	301-654-1515	AppleWorks	General
Ken DeVito	703-960-0786	Beagle Buddies	
W. T. Cook	410-995-0352	Beagle Buddies	
Don Avery	202-362-1783	Beagle Buddies	
Dale Smith	301-762-5158	Communications	
Allan Griff	301-654-1515	Database	Apple Works
Morgan Jopling	410-721-7874	Database	Apple Works
Milt Goldsamt	301-649-2768	Database	Apple Works
Guy Durant	202-575-0414	Epson Printers	
Ron Evry	703-490-1534	General	
Harold Polk	301-662-6399	General	
Ken DeVito	703-960-0786	General	
Dave Jernigan	540-822-5137	Graphics	Print Shop (before 9 PM)
Joan Jernigan	540-822-5137	Graphics	Print Shop (before 9 PM)
Guy Durant	202-575-0414	Hard Drives	
Guy Durant	202-575-0414	Hardware	
Ron Evry	703-490-1534	Hypermedia	Hyperstudio
Bob Sherman	305-944-2111	Laser Printing	
Dave Jernigan	540-822-5137	Operating Systems	(before 9 PM)
Joan Jernigan	540-822-5137	Operating Systems	(before 9 PM)
Joan Jernigan	540-822-5137	Word Processing	Apple Works II (before 9 PM)
Ron Evry	703-490-1534	Word Processing	AppleWriter
Allan Griff	301-654-1515	Word Processing	
Apple // e			
Morgan Jopling	410-721-7874	Upgrade	
Apple // GS			
Rich Sanders	703-450-4371	Drawing/Graphics	Deluxe Paint II
Dick Grosbier	301-898-5461	General	
Eric Grupp	410-315-8331	General	
Seth Mize	410-766-1154	General	
Rich Sanders	703-450-4371	Word Processing	Multiscribe GS
Apple // GS			
Ken Carter	301-834-6516	General	
Apple ///			
Dave Ottalini	301-681-6136	General	
Paul Campbell	313-255-6497	General	
Seth Mize	410-766-1154	General	
Robert Sambolin	787-841-1641	General Repair	
Steve Truax	304-263-5749	Integ. Packages	3 Easy Pieces
Dave Jernigan	540-822-5137	Integ. Packages	3 Easy Pieces (before 9 PM)
Paul Campbell	313-255-6497	Repairs	
Dave Jernigan	540-822-5137		3.5" Super Drive (before 9 PM)
Dave Jernigan	540-822-5137		SCSI Drives (before 9 PM)
Steve Truax	304-263-5749		Stemspeller
Dave Jernigan	540-822-5137		Stemspeller (before 9 PM)

Name	Telephone	Heading	Subjects
Carey McGleish	313-332-8836		Word Juggler (evenings)
Cross Platform			
Ken DeVito	703-960-0786	Transfers	MS/DOS-Apple-Mac
IBM/Compatibles			
Louis Saunders	301-648-7332	Hardware	Troubleshooting & Repair
Etana Finkler	301-891-2821	Illustration	General Can call until midnight
Louis Saunders	301-648-7332	Network	Connectivity
Louis Saunders	301-648-7332	Printers	Connectivity
Tom Cavanaugh	301-627-8889	Printers	General
Louis Saunders	301-648-7332	Printers	Troubleshooting & Repair
Internet			
Dan White	301-843-3287	General	
Walt Francis	202-966-5742	General	
Will DeKroney	410-626-7716	General	
Curt Harpold	301-762-0887	Programming	JAVA
Craig Contardi	410-674-2752	World Wide Web	Netscape Navigator
Seth Mize	410-766-1154	World Wide Web	Sailor
Jaque Davison	703-644-7354	World Wide Web	Web Site Builder
Macintosh			
Nancy Seferian	202-333-0126	Art & Video	General
Robert Sambolin	787-841-1641		General
John Enberg	301-262-9347 or 301-604-8348	Basics	
Tho. Snowberger	410-757-4656	Contact Managers	Now Contact/UTD
Mort Greene	703-522-8743	Database	File Maker Pro
Bill Waring	410-647-5605	Database	Filemaker Pro
Bob Wilbur	703-426-0556	Database	Filemaker Pro
Rick Shaddock	202-321-2110	Database	FoxPro
Harvey Levin	301-299-9380	Database	Helix
Bob Wilbur	703-426-0556	Database	Helix Express
Mort Greene	703-522-8743	Database	MS-File
Dick Nugent	703-425-1056	Database	FileMaker Pro
Elizabeth Mangan	703-750-2710	Database	Pro-Cite
Dave Weikert	301-963-0063	Databases	Panorama
Bob Wilbur	703-426-0556	Database	General
Blake Lange	301-942-9180	Desk Top Pub.	PageMaker
Mort Greene	703-522-8743	Desk Top Pub.	PageMaker
Eric Grupp	410-315-8331	Desk Top Pub.	Quark Xpress
Paul Schlosser	301-831-9166	Desk Top Pub.	Quark Xpress
Ron Johnson	410-315-8764	Drawing/Graphics	Adobe Ilustrator 3.0
Nancy Seferian	202-333-0126	Drawing/Graphics	Aldus Freehand
Bob Wilbur	703-426-0556	Drawing/Graphics	Canvas
Lloyd Olson	410-544-1087	Drawing/Graphics	ClarisDraw
Etana Finkler	301-891-2821	Drawing/Graphics	Freehand Can call until midnight
Nancy Seferian	202-333-0126	Drawing/Graphics	General
Neil Laubenthal	703-691-1360	Drawing/Graphics	General
Etana Finkler	301-891-2821	Drawing/Graphics	General Can call until midnight
Bob Wilbur	703-426-0556	Drawing	General
Blake Lange	301-942-9180	Drawing/Graphics	Illustrator
Etana Finkler	301-891-2821	Drawing/Graphics	Illustrator Can call until midnight
Mort Greene	703-522-8743	Drawing/Graphics	Photoshop
Blake Lange	301-942-9180	Drawing/Graphics	Photoshop
Mort Greene	703-522-8743	Drawing/Graphics	SuperPaint 2.0
Dave Jernigan	540-822-5137	Foreign Languages	FlashWorks (before 9 PM)
Dave Jernigan	540-822-5137	Foreign Languages	Greek Tutor (before 9 PM)
Dave Jernigan	540-822-5137	Foreign Languages	Hebrew Tutor (before 9 PM)
Dave Jernigan	540-822-5137	General	(before 9 PM)

May 1999

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
May 30	May 31				Intro to Mac / Appleworks-Adv	1
2	3 Intro to the Mac	4 Clinic	5 Intro to Spreadsheets / Searching w/Sherlock / Photoshop-Part I	6 Intro to the Mac / Intro to Internet / Columbia Slice	7 Intro to the Mac / Intro to Internet	8 Frederick Slice / Graphics SIG
9 Mother's Day	10 Intro to the Mac	11 Clinic / Intro to Illustrator / Genealogy SIG	12 WAP BoD / Graphic Hardware WkShop / Upgrading Your OS	13 Intermed Mac / Appleworks-Intro / Stock SIG	14 Intermed Mac / Annapolis Slice / Appleworks-Adv	15 NoVa ComCol / WAP General Meeting
16	17	18 Clinic / Photoshop-Part 2	19 Appleworks-Databases / FileMaker Pro Clinic / Excel SIG	20 Excel-Intro / MS Word-Intro / FileMaker SIG	21 Intro to Graphics / Intro to Quicken	22
23	24	25 Clinic	26 Intro to Quiark / Retired SIG	27 Web Page Workshop / Women's SIG	28 Web Page Graphics and Sound	29

June 1999

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 Clinic / Intro to Mac / PhotoShop-Part 1 / Computer Crafting	2 Intro to Mac / Intro to MovieWorks	3 Columbia Slice	4	5 NoVa ComCol / WAP Computer Show/Sale
6	7 Intermed Mac	8 Clinic / PhotoShop-Part 2 / Genealogy SIG	9 WAP BoD / Appleworks-Intro / Appleworks-Adv	10 Intermed Mac / Intro to Internet / Stock SIG	11 Intermed Mac / Intro to Internet	12 Frederick Slice / Graphics SIG
13	14 Intermed Mac	15 Clinic	16 Intro to PhotoDeluxe / Intro to Quicken / Excel SIG	17 Intro to Mac / FileMaker SIG	18 Searching w/Sherlock / Take Control of I-Net Connection	19 Annapolis Slice
20 Father's Day	21	22 Clinic / Databases / Spreadsheets / Intro to PageMaker	23 Quark Clinic / Retired SIG	24 Web Page WorkShop	25 Upgrading Your OS / Personalize Your Mac	26
27	28	29 Clinic	30 QuickTime 3 Pro			

UPCOMING
Computer Show and Sale—June 5th
Computer Camp—2 sessions, July 5—16 & 19—30

Meeting Notices

Annapolis Slice
3rd Saturday; 9:30 AM; Severna Park Library on McKinsey Rd. (off Rt. 2), Severna Park, MD
Answering Machine: (410) 647-5605

AOL SIG, contact John Barnes at JDBarnes@aol.com or in the evening at 301 / 652-0667.

Apple III SIG
Quarterly on 2nd Saturday; 10:00 AM; WAP Office.

Columbia Slice
1st Thursday; 7:00 PM. Call for location
BBS (410) 964-3706

DataBases (Mac) SIG
Volunteers needed to restart this SIG

Delmarva Slice
At the campus of Salisbury State University, but will rotate throughout Delmarva area when appropriate. Email Shelly Wetzel form more information. <sawetzel@ssu.edu>

Excel SIG
3rd Wednesday; 7:30 PM; WAP office.

FileMaker Pro SIG
3rd Thursday; 7:30 PM; WAP office.

Frederick Slice
General meeting time, 2nd Saturday; 10:00 AM; United Methodist Church; 22 Main Street in Walkersville.

Game SIG
1st Thursday; 7:30 PM; Call for location.

Genealogy SIG
2nd Tues. of the month; 10 AM to noon; WAP office.

Graphic Arts SIG
2nd Saturday of the month

Mac Programmers' SIG
Volunteers needed to restart this SIG

Newton Developers' SIG
Volunteer needed

NoVa Education (Ed) SIG
Call SIG chair for times & locations.

QuickTime SIG
2nd Tuesday of each month; 7:30 PM; WAP office.

Retired SIG
4th Wednesday of each month; 11 AM to 2 PM; each meeting will have a topic, but be run informally. WAP office.

Stock SIG
2nd Thursday; 7:30 PM; WAP Office. (Morris Pelham who chairs StockSIG is Sysop of the Investment/StockSIG board on the TCS. Contact him on that board.)

Telecomm SIG
Call SIG chair for times & locations.

WAP Garage Sale—June and December.

WAP General Meeting
4th Saturday; 9:00 AM; Northern Virginia Community College, Annandale Campus, Community Cultural Center Auditorium.

Women's SIG
At the Pi Office at 6:00 PM dinner ($2) followed by 7:00 PM meeting/presentation. Call SIG chair. New chair information not received.

Notice: Plans change! Anyone with calendar information please call the Calendar Editor, Bill Wydro (301) 299-5267 or Beth Medlin at the WAP Office (301) 984-0300.

Name	Telephone	Heading	Subjects
Joan Jernigan	540-822-5137	General	(before 9 PM)
Dan White	301-843-3287	General	
Dick Grosbier	301-898-5461	General	
Russell Robinson	301-739-6030	General	
Eric Seidel	540-667-5289	General	Networking
Neil Laubenthal	703-691-1360	General	
Tom Cavanaugh	301-627-8889	General	
Tom DeMay	410-461-1798	General	
Tom Witte	703-683-5871	General	
Bob Wilbur	703-426-0556	General	
Louis Saunders	301-648-7332	Hardware	Troubleshooting & Repair
Joan Jernigan	540-822-5137	Hypermedia	HyperStudio (before 9 PM)
Jerry Iler	410-987-5432	IIsi	General
Bill Geiger	703-237-3614	Integ. Packages	ClarisWorks
Sandy Kowalczuk	410-268-3149	Integ. Packages	ClarisWorks
Ray Settle	410-647-9192	Integ. Packages	Clarisworks
Joan Jernigan	540-822-5137	Integ. Packages	ClarisWorks (before 9 PM)
Jim Ritz	301-770-1405	Integ. Packages	MSWorks
Ray Settle	410-647-9192	Integ. Packages	MSWorks
Tim Childers	301-997-9317	Integ. Packages	MSWorks
Dave Weikert	301-963-0063	MacDisketeria	Disk Library
Dave Jernigan	540-822-5137	Mail List Manager	My Mail List Manager (before 9 PM)
Mort Greene	703-522-8743	Miscellaneous	File Transfer & Backfax
Sandy Kowalczuk	410-268-3149	Miscellaneous	HyperCard
Blake Lange	301-942-9180	Miscellaneous	Hypercard
Tom Witte	703-683-5871	Miscellaneous	Hypertalk
Jeff Dillon	301-434-0405	Miscellaneous	MX-80
Dave Jernigan	540-822-5137	Miscellaneous	Online Bible Mac
Dave Jernigan	540-822-5137	Miscellaneous	Soft Windows Mac
Rick Chapman	301-989-9708	Miscellaneous	Hypercard
Tom Witte	703-683-5871	Miscellaneous	Hypercard
Peter Combes	301-445-3930	Multi Media	Director
Peter Combes	301-445-3930	Multi Media	Language
Mort Greene	703-522-8743	Multimedia	Image Studio
Mort Greene	703-522-8743	Multimedia	Macro Mind Director
Stuart Bonwit	301-598-2510	Multimedia	Quicktime
Tom Witte	703-683-5871	Multimedia	Quicktime
Mort Greene	703-522-8743	Multimedia	Video Works
Frank PappaJohn	703-922-3851	Music Notation	Finale
Jerry Iler	410-987-5432	Older Claris	General
Jerry Iler	410-987-5432	PB180C	General
Lester Morcerf	410-987-0685	Performa 550	General
Tho. Snowberger	410-757-4656	Performa System	General
Rick Shaddock	202-321-2110	Pers.Contact Mgr.	ACT
Mel Benson	410-647-6873	Personal Finance	Dollars & Sense
Bill Geiger	703-237-3614	Personal Finance	Manage Your Money
Mel Benson	410-647-6873	Personal Finance	Manage Your Money
Clarence Goldberg	410-263-5189	Personal Finance	Quicken
Henry Miller-Jones	703-478-3721	Personal Finance	Quicken
Bob Wilbur	703-426-0556	Personal Finance	Quicken
Louis Saunders	301-648-7332	Printers	Connectivity
Louis Saunders	301-648-7332	Printers	Troubleshooting & Repair
Tom Cavanaugh	301-627-8889	Printers	General
Walt Francis	202-966-5742	Printers	General
Michael Hartman	301-942-3717	Programming	C
Michael Hartman	301-942-3717	Programming	General
Harry Erwin	703-758-9660	Programming	General (e-mail at herwin@gmu.edu)
Joshua Juran	301-231-8622	Programming	Perl, C, C++, Pascal
Michael Hartman	301-942-3717	Programming	Pascal
Charles Schindler	410-437-4624	Spreadsheets	Excel
Lloyd Olson	410-544-1087	Spreadsheets	Excel
Walt Francis	202-966-5742	Spreadsheets	General
Roger Burt	301-424-6927	Spreadsheet/Chart	ClarisWorks
Bob Wilbur	703-426-0556	Spreadsheet	ClarisWorks
Mark Pankin	703-524-0937	Spreadsheet/Chart	Excel

Name	Telephone	Heading	Subjects
Dick Byrd	703-978-3440	Spreadsheet/Chart	Excel
Mort Greene	703-522-8743	Spreadsheet/Chart	Excel
Rick Shaddock	202-321-2110	Spreadsheet/Chart	Excel
Tom Cavanaugh	301-627-8889	Spreadsheet/Chart	Excel
Bill Waring	410-647-5605	System	General Mac Help
Lloyd Olson	410-544-1087	System	Mac OS
Neil Laubenthal	703-691-1360	System	Mac OS Modems General
Bernie Benson	301-951-5294	Telecomm.	Modems Hayes Smartmodem
Jaque Davison	703-644-7354	Virtual Reality	Alien Skin Texture Shop
Jaque Davison	703-644-7354	Virtual Reality	Bryce 2
Jaque Davison	703-644-7354	Virtual Reality	Specular Logomotion
Jaque Davison	703-644-7354	Virtual Reality	Virtus - 3-D
Jaque Davison	703-644-7354	Virtual Reality	Virtus Walkthrough Pro
Dave Jernigan	540-822-5137	Word Processing	Word Perfect (before 9 PM)
Charles Schindler	410-437-4624	Word Processing	WordPerfect
Eric Grupp	410-315-8331	Word Processing	WordPerfect
Bob Wilbur	703-426-0556	Word Processing	WordPerfect
Walt Francis	202-966-5742	Word Processing	General
Tim Childers	301-997-9317	Word Processing	Hebrew
Tom Cavanaugh	301-627-8889	Word Processing	MS Word
Harris Silverstone	410-435-3582	Word Processing	MS Word
Joan Jernigan	540-822-5137	Word Processors	Claris Works (before 9 PM)
Dave Jernigan	540-822-5137	Word Processors	Word Perfect

Macintosh & Apple

Name	Telephone	Heading	Subjects
Ginny Spevak	202-244-8644	Miscellaneous	Dvorak Keyboard
Mike Spevak	202-244-8644	Miscellaneous	Dvorak Keyboard
Bob Sherman	305-944-2111	Telecomm.	General
Dale Smith	301-762-5158	Telecomm.	General
John Barnes	301-652-0667	Telecom	AOL
Dale Smith	301-762-5158	Telecomm.	TCS
David Harris	202-966-6583	Telecomm.	TCS
Nancy Seferian	202-333-0126	Telecomm.	TCS
Paul Schlosser	301-831-9166	Telecomm.	TCS

Networking

Name	Telephone	Heading	Subjects
Louis Saunders	301-648-7332	Mac	Connectivity
Douglas Ferris	301-924-4180	Networking	Novel
Douglas Ferris	301-924-4180	Networking	Windows
Dave Weikert	301-963-0063	Networking	Mac/AppleShare

Did we miss you? Want to change your listing? Want to be added to the hotline?

To be added, simply call the office during normal business hours or send the information via e-mail to Jim Ritz at <jim.ritz@tcs.wap.org>.

Include your name, phone number and subject(s) you want to assist with.

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
<B> ...... 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> ..... Zelect File Areas

File Area Menu
<A> ..... Alphabetical List
<B> ...... 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 Down-
        loading
<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 Tempo-
        rary 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 Confer-
        ence
<6> ...... Global Apple II Confer-
        ence
<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> ..... Zelect Boards of Interest

Bulletin Board Menu
<A> ..... Alter/Edit an Existing
        Message
<B> ...... 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
<B> ...... 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.

Macintosh Tutorials

General Macintosh Classes

Introduction to Macintosh

Meant for the new user or anyone who wants to learn more about the basic operation of the Macintosh. The student will learn how to safely turn the Macintosh on and off; 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. The basic dos and don'ts of computer maintenance will also be covered. You will learn how the Finder works. The finer points of the Menu Bar and the Apple Menu will be discussed. Error Messages, Dialog Boxes, Icons, Folders, Keyboard Shortcuts, Scrapbook and Clipboard will also be covered. 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. You should review the program Macintosh Basics and Mouse Basics prior to attending the class. This is a two session class. The price is $70 for both sessions ($100 for nonmembers).

Introduction to Macintosh
Evening Set 1
5/3/99 and 5/10/99 from 7pm - 10 pm (Jim Ritz)
Day Set 1
5/6/99 and 5/7/99 from 9:30 am - 12:30 pm (Pat Fauquet)
Day Set 2
6/1/99 and 6/2/99 from 9:30 am - 12:30 pm (Pat Fauquet)
Day Set 3

6/17/99 from 9:30 am - 4 pm (Pat Fauquet)
Day Set 4
7/1/99 from 9:30 am - 4 pm (Pat Fauquet)

Intermediate Macintosh

Intermediate Macintosh will follow-up on the concepts taught 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; You'll learn how to upgrade your hardware and applications. You will learn more about maintaining and troubleshooting your Mac. Topics will include: organizing and managing your hard disk; backing up information and backup strategies, archiving, disk formatting, defragmentation and optimization; managing system extensions and control panels; avoiding conflicts and incompatibilities; virus protection; memory management; upgrading or replacing the operating system; system enhancements; customizing software installation; mouse maintenance; and Macintosh "housekeeping" philosophies. This is a two session class. The price is $70 for both sessions ($100 for nonmembers).

Intermediate Macintosh
Evening Set 1
6/7/99 and 6/14/99 from 7pm - 10 pm (Jim Ritz)
Day Set 1
5/13/99 and 5/14/99 from 9:30 am - 12:30 pm (Pat Fauquet)
Day Set 2
6/10/99 and 6/11/99 from 9:30 am - 12:30 pm (Pat Fauquet)
Day Set 3
7/2/99 from 9:30 am - 4 pm (Pat Fauquet)

Upgrade Your Operating System or Replace Your System Software

Learn how to prepare your computer to upgrade its system software or replace the operating system. Students are invited to bring in their own CPU's and System Software CD's for guided instruction. Learn how to back up essential files and documents, how to use Disk First Aid to repair any hard drive catalog errors which may exist, what pieces of the System Software you will want to or need to install, and which pieces of the old System Folder to bring into the new one. Learn how to update printer and scanner drivers. Learn all about features in the newest System Software from Apple. **NOTE:** Students who choose to bring their CPU's should not bring any cables, power cords, keyboards or monitors. The price is $35 ($50 for non members).
Upgrade Your Operating System or Replace Your System Software
5/12/99 from 1 pm - 4 pm (Pat Fauquet)
6/25/99 from 9:30 am - 12:30 pm (Pat Fauquet)

Personalize Your Mac

The Macintosh platform offers the user many features that can be customized to make the computer fit the user. In this class we will explore the customization options available within the operating system such as increased screen font sizes, new desktop patterns and pictures, alert sounds, start-up and shut down items, launchers, contextual menus and basic AppleScripting. We will also look at additional system extensions, control panels and software to further customize the computer interface including additional clipboards, scrapbook and notepad enhancements and additional calculators. Since these system enhancements will occasionally cause extension conflicts, the class will also cover troubleshooting them.

Specialized notepads, scrapbooks, calculators. **Prerequisite:** A good working knowledge of the Mac OS and its interface. The price is $35 ($50 for non members).
Personalize Your Mac
6/25/99 from 1 pm - 4 pm (Pat Fauquet)

Searching with Sherlock

System 8.5 introduced Macintosh users to a new "find file" application called Sherlock. This class will cover all three of Sherlock's search options. In the "Find File" portion we will cover search strategies to not only find files but also as an aid to cleaning up your hard drive and System Folder. In the Find by Content section we will discuss indexing of your hard drive to make these searches faster and how to structure searches to find what you think you have. In the Search Internet section we will cover Sherlock search plug-ins and how to use and manage them. Learn how to save searches and when to use Sherlock instead of Internet search engines. **Prerequisite:** A good working knowledge of the Mac OS and its interface. The price is $35 ($50 for non members).

Searching with Sherlock
5/5/99 from 1 pm - 4 pm (Pat Fauquet)
6/18/99 from 1 pm - 4 pm (Pat Fauquet)

AppleWorks (ClarisWorks)

Introduction to AppleWorks (a.k.a ClarisWorks)

This class will introduce the student to the integrated software package, AppleWorks. The course will begin with an introduction to the fundamentals of the AppleWorks 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. **Prerequisite:** Introduction to the Macintosh or a good knowledge of the Mac OS and its interface. The price is $35 ($50 for nonmembers).

Introduction to AppleWorks
5/13/99 from 1 pm - 4 pm
(Pat Fauquet)
6/9/99 from 9:30 am - 12:30 pm (Pat Fauquet)

AppleWorks (a.k.a ClarisWorks) for the Experienced User

In this class we will take AppleWorks to a new level! Learn how to make easy outlines, lists, and check-off charts. Make great slide shows and presentations right in AppleWorks. Learn how to dress up charts and graphs, how to make specialized dictionaries, and how to have AppleWorks read to you! Learn the secrets of stationary files, how to make your own AppleWorks libraries store not only pictures, but also frequently used text strings. Learn how to write personalized form letters and how to do special layouts for newsletters. Many of the projects included will be using the capabilities of ClarisWorks 4.0 and AppleWorks 5.0 Students will receive templates, stationary files and handouts to take home. If you have any feature of the program that you would like covered in particular, please mention it when you sign up. **Prerequisite:** Introduction to AppleWorks or a good knowledge of the basics of AppleWorks and its interface. The price is $35 ($50 for non members).

AppleWorks for the Experienced User
5/14/99 from 1 pm - 4pm (Pat Fauquet)
6/9/99 from 1 pm - 4pm (Pat Fauquet)

AppleWorks (a.k.a ClarisWorks) for the Experienced User Workshop

This class is for those who have some experience with AppleWorks and are interested in asking questions and having specific problems discussed. The class will be a questions and answer format. You should bring along on floppy a sample of things with which you need help. The idea being that you can work on a project while the instructor is helping another with one that does not interest you. **Prerequisite:** Introduction to AppleWorks or a good knowledge of the basics of AppleWorks and its interface. The price is $35 ($50 for non members).

AppleWorks for the Experienced User Workshop
Call Office for Dates (Pat Fauquet)

Networking

Networking for the Home and Small Office

Do you have two Macintoshes and one printer— or two printers and one Macintosh—or maybe even more?

Come learn the possibilities offered by the Macintosh platform to share not only printers, but also files and even modems. Learn about the built in networking software in every Macintosh and various hardware and software options available to do even more. This class will cover AppleTalk and PhoneNet connectors, AB switch boxes, serial port expanders, USB ports and hubs, ethernet, cards, and transceivers. Hubs, router and servers will also be discussed.

Learn how to install network cabling without tearing down all the walls and learn how to determine what kind of cable to buy and how to put the connectors on the cables.

In addition to talking about wires and hardware choices we will also discuss sharing files and applications between two or more computers and printers. **Prerequisite:** A good working knowledge of the Mac OS and its interface. The price is $35 ($50 for non members).

Networking for the Home and Small Office
Call Office for Dates (Pat Fauquet)

Internet, Telecommunications

Introduction to the Internet

This two session class is an introduction to the Internet. The browser screen and the functions of the various buttons will be discussed. The user will learn how to personalize the browser window to meet visual and screen needs. Internet addresses and error messages will be explained.

Search engines and directories will be discussed and explored. Students will learn about bookmarks and how to manage and share them with others. They will learn how to download pictures and files and how to use them on their computer. This will include how to install downloaded software and to use it. Computer viruses and methods of avoiding them will also be discussed. Student will learn how to print information and save files from the Internet, both with and without pictures. This class is appropriate for all users of the Internet including America OnLine customers. **Prerequisite:** Introduction to the Macintosh or a good knowledge of the Mac OS and its interface. The price is $70 for both parts ($100 for non members).

Introduction to the Internet
5/6/99 and 5/7/99 from 1 pm - 4 pm
 (Pat Fauquet)
6/10/99 and 6/11/99 1 pm - 4 pm
 (Pat Fauquet)

Take Control of Your Internet Connection

Are you tired of having to call your Internet company for advice, only to reach a technician who has never seen a Mac. Are you fed up with being told that if you want to use the newest browser or the latest system software, they will not provide technical support. Would you like to know what settings and numbers you need to know to keep your Internet connection always working?

Come learn how the software that enables you to reach the Internet works. Learn how to record the essential numbers and settings. Then learn how and where to find the latest browser and Internet software. Learn about browser plug-ins and how to download and install them. Learn how to personalize your browser and mail software. Learn how to switch between Netscape and Microsoft Internet Explorer. Learn how to deal with bookmark files and Internet address books.

Students are invited to bring their own CPU to work on if they so desire. Do not bring any cables, power cords, keyboards or monitors. If they wish to test their modem connection, bring the modem, modem cable and modem power supply. The price is $35 ($50 for non members).
Take Control of Your Internet Connection
6/18/99 from 9:30 am - 12:30 pm
 (Pat Fauquet)

Learn to Use the TCS (the Pi's legendary bulletin board)

Learn how to use ZTerm (a telecommunications program) or Nifty Telnet; to log on to the TCS. Learn to send and receive Internet e-mail, to navigate around the TCS's conference system, read and enter messages to it and how download files from the Files Library. **Prerequisite:** Introduction to the Macintosh or a good knowledge of the Mac OS and its interface. The price is $35 ($50 for nonmembers).
Learn to Use the TCS (the Pi's legendary bulletin board)
Call Office for Dates

Web Page Development

Web Page Workshop

Come design a web page! In this class students will be introduced to HTML and how it works. They will learn how to use Claris Home Page or Adobe PageMill or GoLive CyberStudio Personal Edition to make a series of linking web pages using pre-made backgrounds, graphics, animations and sounds. They will learn how to plan and organize their files for easy web page maintenance. They will learn about the principles of good web page design. Their pages will be ready to upload to the web. If you have a external Zip drive, please bring it and an empty Zip disk to class. If you have an internal Zip drive at home, please bring an empty Zip disk to class. This is an all day workshop. Please bring a sack lunch or money to

order lunch in. It is suggested that a good follow-on class would be Graphics and Sound for My Web Page. **Prerequisite:** Introduction to the Macintosh or a good knowledge of the Mac OS and its interface. The price is $70 ($100 for non members).
Web Page Workshop
5/27/99 from 9:30 am - 4 pm
 (Pat Fauquet)
6/24/99 from 9:30 am - 4 pm
 (Pat Fauquet)

Graphics and Sound for My Web Page

In this all-day workshop students will learn how to make and prepare backgrounds, clip art, buttons, rules, dividers and animations for web pages. They will learn about the GIF, JPEG and PNG formats and when to use them. In the sound portion of the class students will learn how to record and edit sound files to prepare them for adding to a web page. Copyright issues will be discussed. Students will be introduced to the use of scanners and digital cameras. Bring several photos for scanning and a CD or tape for music and sound effects. If you want to use these projects in an actual web page, please sign up for Web Page Workshop in addition to this class. If you have a external Zip drive, please bring it and an empty Zip disk to class. If you have an internal Zip drive at home, please bring an empty Zip disk to class. This is an all day workshop. Please bring a sack lunch or money to order lunch in. **Prerequisite:** Introduction to the Macintosh or a good knowledge of the Mac OS and its interface. The price is $70 ($100 for non members).
Graphics and Sound for My Web Page
5/28/99 from 9:30 am - 4 pm
 (Pat Fauquet)

Consumer Graphics and Multimedia

Introduction to Graphics

Are you confused by graphic jargon? Would you like to learn how to choose and use a scanner? Do you know the difference between draw and paint programs? Are you wondering about digital cameras? Are you baffled by PICT, GIF, TIFF BMP, JPEG, and all those other graphic formats? Would you like to learn how to send a picture by e-mail? Do you know what to do with pictures people send to you? Would you like to learn how to make your own Finder backgrounds and icons? This is the class for you! We will explore all these topics in nontechnical language and show you how make graphics work for you! **Prerequisite:** Introduction to the Macintosh or a good knowledge of the Mac OS and its interface. The price is $35 ($50 for non members).

Introduction to Graphics
5/21/99 from 9:30 am - 12:30 pm
(Pat Fauquet)

Computer Crafting Class

An informal class in a flexible format to help students combine regular art and craft skills with their computer. This combination will open many new doors for some, and make life easier for others. This will not be a class to teach a specific skill, rather it will teach how to open your creative spirit. Students are invited to bring clip art, graphic applications and projects to class. Instead of showing you new software you have to buy, this class is structured to help you get the best use out of software you own.

Learn how to create stencils, templates, silk screens, sponge patterns, etc. Using new ink jet media you can make elegant faux stained glass, personalized gifts, animated greeting cards, elegant wall hangings, memory books and quilts, jewelry, games, etc.

Requirement for attendance: imagination or a desire to imagine. New crafters may attend to learn new computer tricks and experienced crafters may attend to learn computer tricks. None of the classes require

previous experience.

Creativity grows in a creative environment. Come play with us. Each class will be different based on the needs and skills of the students. Requests for specific content are invited. When you register, tell us what you want to learn, what software you want to use and anything else you want to share. **Prerequisite:** Introduction to the Macintosh or a good knowledge of the Mac OS and its interface. The price is $35 ($50 for non members).

Computer Crafting Class
6/1/99 from 1 pm - 4 pm (Mary Keene)

Working with QuickTime 3 Pro

Have you ever wished you could make a video from your computer instead of writing a report? Have you ever wanted to add titles, credits and/or a new sound track to your home videos? Have you ever wanted to cut or mix your own audio tapes? Have you wanted to make your own QuickTime movie, a QuickTime pan-orama or make QuickTime VR object? Do you know what equipment you need and how to hook it up to your Mac to make all those things happen? All these projects can be done with QuickTime 3 Pro which is included in Macintosh OS 8.5 In this class we will explore these projects, discuss what you need to do them, and show you where to buy the missing parts without spending a fortune. If you have a external Zip drive, please bring it and an empty Zip disk to class. If you have an internal Zip drive at home, please bring an empty Zip disk to class. This is an all day workshop. Please bring a sack lunch or money to order lunch in. **Prerequisite:** Introduction to the Macintosh or a good knowledge of the Mac OS and its interface. The price is $70 ($100 for non members).

Working with QuickTime 3 Pro
6/30/99 9:30 am - 4 pm (Pat Fauquet)

Introduction to Adobe PhotoDeluxe

This inexpensive program is fun

and easy to learn. It can be used to edit images for the web. It also can be used to enhance digital photographs or scanned images, make calendars, posters, and cards. The only major drawback to the program is its poorly written manual with lots of neat examples but few detailed instructions. In this class students will learn how to use this program to accomplish many tasks that normally require Adobe PhotoShop. **Prerequisite:** Introduction to the Macintosh or a good knowledge of the Mac OS and its interface. The price is $35 ($50 for non members). **Introduction to Adobe PhotoDeluxe 6/16/99 from 9:30 am - 12:30 pm**
    (Pat Fauquet)

Introduction to MovieWorks

Many Washington Apple Pi members purchased MovieWorks at the November General Meeting. Come learn how this software works in a hands-on session. We will make a "movie" that brings in several pictures, adds titles, has narration and an animation and transitions between pictures. We will then make QuickTime movies that can be played on a computer and over the Internet. The instructor will demonstrate how to digitize a movie on a computer with a video capture card and how to record from the computer to a VCR. We will discuss how to add video capture and video out capabilities to your computer. We will also discuss how to optimize your system to make the best possible movies with MovieWorks. Students are invited to bring their own pictures to be put into their MovieWorks projects. If you own a Zip drive or other large capacity storage device you may want to bring it to take your project home. If you do not own MovieWorks, information will be provided on where to obtain the software. The price is $35 ($50 for non members).
    Introduction to MovieWorks 6/2/99 from 1 pm - 4 pm (Pat Fauquet)
        Graphic Hardware Workshop
        This will be a free form session.

Scanners, digital cameras, a tripod and turntable, microphones, an AV Macintosh and VCR will be available for student use. Software such as Adobe PhotoDeluxe and PhotoShop, MovieWorks, QuickTime movie, panorama and VR author ware, audio editing and recording software, and Internet authoring packages will be available for student use. The instructor will provide hands-on guidance. Students should bring photos or objects to scan, sounds or movies to digitize, scripts to record, or projects in progress. Since the end products may be too large to fit on a 3.5 disk, students are encouraged to bring drives for removable media other than Zip drives. Two Zip drives will be available.

This workshop does not replace introductory instruction in individual software packages such as PhotoShop, MovieWorks and PhotoDeluxe. The instructor will aid in accomplishing projects, but will not be able cover introductory material. The price is $35 ($50 for non members).
    Graphic Hardware Workshop 5/12/99 form 9:30 am - 12:30 pm (Pat Fauquet)

Home and Small Business Financial Management

Introduction to Quicken

This course will be an introduction to the personal use of Quicken 7 or 98, and will cover the following: Entering Accounts, Use of QuickFill, Split Transactions, Categories, Writing Checks, Preferences, Passwords, Help, Reconciling Accounts, Reconciliation Report, Credit Card Accounts, Transferring Money.

Students should have some familiarity with the program and made an attempt to use it before class. The class will be taught using Quicken 7 (not the deluxe version). The instructor will try to answer all questions as long as they are within the curriculum outlined above. Bring your written questions. **Prerequisite:** Introduction to the

Macintosh or a good knowledge of the Mac OS and its interface. The price is $35 ($50 for non members).
    Introduction to Quicken 5/21/99 from 1 pm - 4pm (Pat Fauquet) 6/16/99 from 1 pm - 4 pm
        (Pat Fauquet)

Making Quicken Really Useful as an Interface to Your Bank

Instructor will go over online banking and bill paying along with the general concept of this new banking service. The focus will be on using Quicken with a Crestar Bank account. The principles are the same with most financial institutions, so if you use or plan to sign up with another bank, this will still be valuable. To use any of these services, you need at least a 14.4 modem and Quicken 7 (you cannot use earlier versions).

If you plan to use Citibank's service or some other financial institution (certain Credit Unions, for example) which have proprietary software, this class will be only of limited use, but may be helpful in understanding how these systems generally work, security issues, etc. Instructor has approximately one year experience with 3 different banking institutions/services. Prerequisite: Students should at least be using Quicken to maintain a checking account register. A basic understanding of Quicken and its basic terminology. The price is $35 ($50 for non members).

Making Quicken Really Useful as an Interface to Your Bank - Call Office for Dates

Databases, and Spreadsheet Programs

Introduction to FileMaker Pro and/ or the AppleWorks (a.k.a ClarisWorks) Database Module

This course covers what a database is, database terms, how to plan a database, and create database fields and layouts. Searching, sorting, printing and editing information in a database will also be covered. The differences between the AppleWorks module and FileMaker Pro will be discussed as well as when and how to migrate an existing database into FileMaker Pro. Prerequisite: Introduction to the Macintosh or a general knowledge of the Mac OS and its interface. The price is $35 ($50 for non members).

Introduction to FileMaker Pro and/ or the AppleWorks Database Module
5/19/99 from 9:30 am - 12:30 pm
(Pat Fauquet)
6/22/99 from 9:30 am - 12:30 pm
(Pat Fauquet)

FileMaker Pro Clinic

This class is for those who have some experience with FileMaker Pro and are interested in asking questions and having specific problems discussed. The class will be a questions and answer format. You should bring along on floppy a sample of things you would like help. Prerequisite: Introduction to FileMaker Pro or a good knowledge of the basics of FileMaker Pro and its interface. The price is $35 ($50 for non members).

FileMaker Pro Clinic
5/19/99 from 1 pm - 4 pm
(Pat Fauquet)

Introduction to Spreadsheets

This class will introduce basic spreadsheet concepts. Students will learn how to set up a spreadsheet, how to enter and edit numbers and words, how to enter basic formulas and make basic charts and graphs. They will learn how to sort data and how to print the whole spread sheet or only a portion of it. Students will use either the spreadsheet module of AppleWorks (ClarisWorks) or Excel. This class is not meant for persons who are intermediate or advanced users. Prerequisite: Introduction to the Macintosh or a general knowledge of the Mac OS and its interface. The price is $35 ($50 for non members).

Introduction to Spreadsheets
5/5/99 from 1 pm - 4 pm (Pat Fauquet)

Professional Graphics and Desktop Publishing

Washington Apple Pi Tutorial Registration Form

Washington Apple Pi
12022 Parklawn Drive
Rockville, MD 20852
301-984-0300

Name_____

Address_____

City/State/Zip_____

Phone (day)_____ (evening)_____

Member Number_____ Non-member _____

Number of Classes____ x Class Fee $____ = Total Fee $ ____

☐ Check/Money Order   ☐ Credit Card

Card Number _____

Card Expiration_____ Signature_____

Please fill in the course number(s) of the class(es) that you wish to attend.

Class #1_____

Class #2_____

Class #3_____

Class #4_____

Class #5_____

Class #6_____

WAP Form #CL006 (mod. 7/90) . Mail registration and payment to the above address.

Adobe Photoshop Part 1

Learn the basic fundamentals of Adobe Photoshop, the most widely used graphics program. Learn the proper way to configure the Photoshop preferences and how to use the tool, info, channel and color palettes. Also learn how to use each of Photoshop's tools, create new documents, define colors and manipulate text and images. Also covered will be the proper format to save your image in, and what compression will or won't do to your image. Prerequisite: Introduction to the Macintosh or a good knowledge of the Mac OS and its interface. The price is $35 ($50 for non members).

Adobe Photoshop Part 1
5/5/99 from 6 pm - 9 pm
(Paul Schlosser)
6/1/99 from 6 pm - 9 pm
(Paul Schlosser)

Adobe PhotoShop Part 2

Adobe Photoshop lets you isolate different parts of an image on layers. Each layer can then be edited as discrete artwork, allowing unlimited flexibility in composing and revising an image. This lesson introduces creating an image with layers, and covers the basics of the Layers palette and how to select, view, and reorder layers. The concepts are fundamental for the use of Photoshop. In this lesson, you'll learn how to do the following: Organize your artwork on layers. Create a new layer. View and hide layers. Select layers. Remove artwork on layers. Reorder layers to change the placement of artwork in the image. Apply modes to layers to vary the effect of artwork on the layer. Link layers to affect them simultaneously. Apply a gradient to a layer. Add text and layer effects to a layer. Save a copy of the file with the layers flattened. Prerequisite: Adobe PhotoShop Part 1 or a knowledge of the topics covered in that class. The price is $35 ($50 for non members).

Adobe PhotoShop Part 2
5/18/99 from 7 pm - 10 pm
(Blake Lange)

6/8/99 from 7 pm - 10 pm
(Blake Lange)

Introduction to Adobe Illustrator

This course will cover the basics of vector graphics, drawing straight lines, curves, and shapes, tracing images, using paint tools, working with layers, and creating and editing text. **Prerequisite:** Introduction to the Macintosh or a good knowledge of the Mac OS and its interface. The price is $35 ($50 for non members).

Introduction to Adobe Illustrator
5/11/99 from 7 pm - 10 pm
(Blake Lange)

Introduction to Quark XPress

Learn the basic fundamentals of Quark Xpress, the most widely used page layout program. Learn the proper way to configure the Xpress preferences and how to use the tool, measurement, color and documents palettes. You'll learn how to properly create new documents, define four-color process and spot colors, create master pages and manipulate text and graphic objects. Learn how to correctly use Xpress font and picture usage windows and how to configure the document for the laser printer or high-resolution imagesetter. Prerequisite: Introduction to the Macintosh or a good knowledge of the Mac OS and its interface. The price is $35 ($50 for non members).

Introduction to Quark XPress
5/26/99 from 6 pm - 9 pm
(Paul Schlosser)

Quark Xpress Clinic

This class is for those who have some experience with Quark Xpress and are interested in asking questions and having specific problems discussed. The class will be a question and answer format and you should bring along on floppy a sample of things for which you would like help. Prerequisite: Introduction to Quark Xpress or a good knowledge of the basics of Quark Xpress and its interface. The price is $35 ($50 for non members).

Quark Xpress Clinic
6/23/99 6 pm - 9 pm (Paul Schlosser)

Introduction to PageMaker

Using the basic commands, tolls, and palettes, you will import, format, and position text and graphic elements needed to assemble a single-page, black and white flyer. This project will cover the following topics: Restoring default PageMaker settings. Changing the view of a publication. Creating a new publication. Opening an existing publication. Setting up the horizontal and vertical rulers. Displaying and hiding guides. Positioning the zero point. Using the pointer tool, the text tool, and the zoom tool. Specifying multiple columns. Locking the guides. Creating, placing formatting, and positioning text and graphic elements. Creating a drop cap. Applying a tint to text. Specifying a hanging indent. Creating ruler guides. Drawing circles, rectangles, and lines. Adjusting the stacking order of elements on the page. Range kerning text. Using the Snap to Guides option. Prerequisite: Introduction to the Macintosh or a good knowledge of the Mac OS and its interface. The price is $35 ($50 for non members).

Introduction to PageMaker
6/22/99 7 pm - 10 pm (Blake Lange)

PageMaker Clinic

This class is for those who have some experience with PageMaker and are interested in asking questions and having specific problems discussed. The class will be a questions and answer format and you should bring along on floppy a sample of things for which you would like help. **Prerequisite:** Introduction to PageMaker or a good knowledge of the basics of PageMaker and its interface. The price is $35 ($50 for non members).

PageMaker Clinic
Call Office for Dates ■

Grammarian

©1999 Mary Keene

I INSTALLED *Grammarian* on my Power Mac 6100 running OS 8.1 and ran it without any problems. It was pretty intuitive to learn, no weird stuff or complex things to remember, point and click. I liked it. It has a very comfortable way of letting you know there are errors. I have used other grammar checkers that are belligerent or aggressive, or just enjoy letting you know they caught another mistake. *Grammarian* is not like any of those. It is gentle; more specifically, it is pretty accurate and doesn't have a one-note theme. Some of the very early grammar checkers could only check for passive or active verb use. That gets old fast.
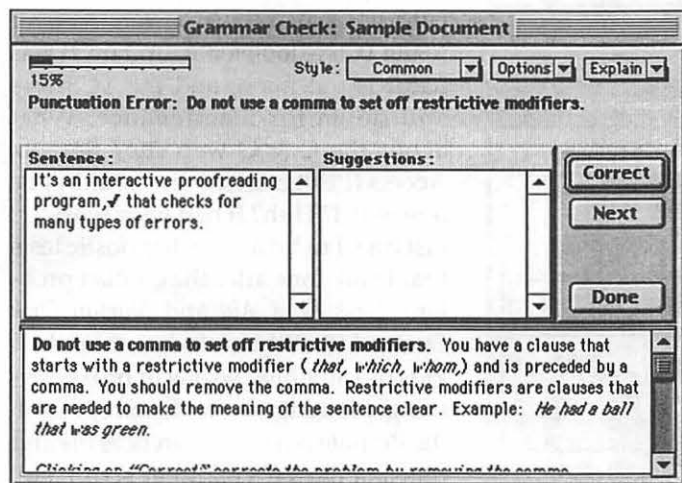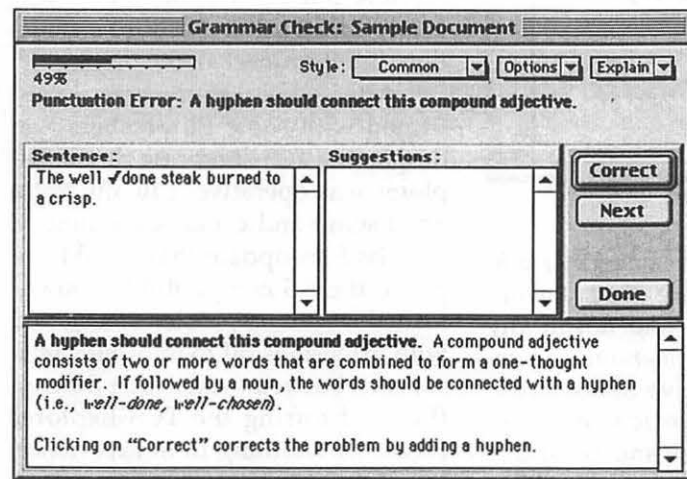
Initially, I didn't test anything specific; I just installed it, activated it, and watched what happened. I had tried *Grammarian* previously by downloading the demo version. The version I got on the floppy diskette was the same but generated a strange report: a punctuation error when I typed a period at the end of a sentence. Since I was just perusing the software at this point, I made a note to come back for specific testing of this oddity and continued playing with it.

You can run *Grammarian* in either an interactive mode or a "silent" mode. In the interactive mode, a pleasant computer voice quietly states the problem as soon as you type a grammatical error. It will permit you to keep typing and is not a significant distraction, especially if you work in a noisy environment. The silent mode can be used at intervals to proofread what has been written; alternatively, you can complete the document and proofread it all at once. You can also choose to have *Grammarian* pop up a message noting an error at the point of commission instead of or in addition to speaking the error.

After I finished exploring the features, I went back to investigate more specifically the puzzling punctuation error message and to select screen shots to illustrate the features. Before I got very far, I had an acute hardware problem that forced me to suspend working with *Grammarian* for a while. I had been using my scanner, *PhotoShop* 3.0 and *Flashback* to scan some old family pictures for archiving. Suddenly I got an urgent message that my hard drive only had 796 K of storage space left! Moments before I had at least 100 MB; furthermore I couldn't use the Finder, I couldn't shut down, I couldn't do anything! I mention these things only because this began a very weird two-week time frame, and I don't know if the one legitimate problem I
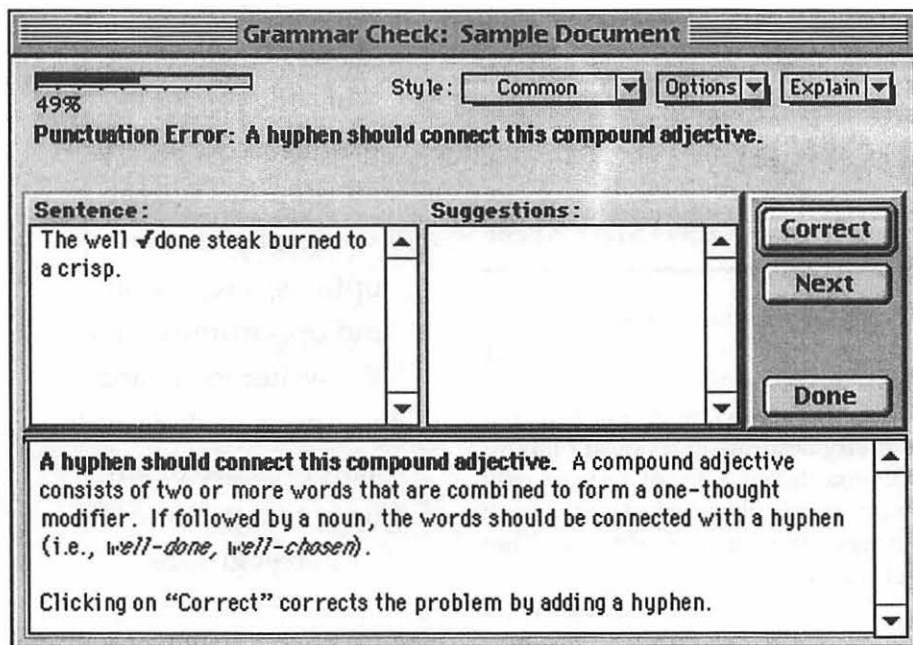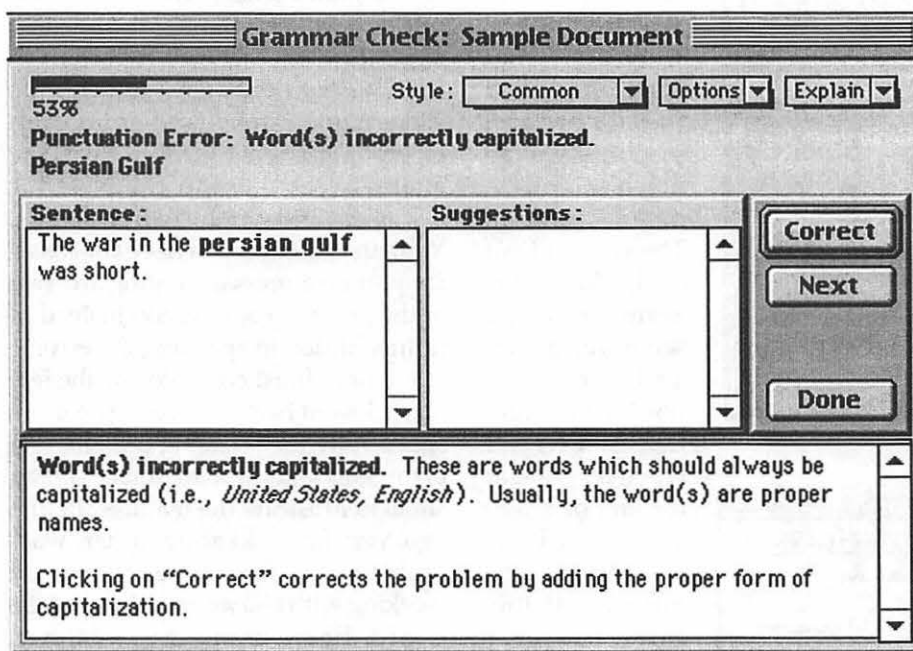

Figure 1

Figure 2

Grammar Check: Sample Document

49%
Style: Common ▼ Options ▼ Explain ▼
Punctuation Error: A hyphen should connect this compound adjective.

Sentence:	Suggestions:	
The well ✓done steak burned to a crisp.		Correct
		Next
		Done

A hyphen should connect this compound adjective. A compound adjective consists of two or more words that are combined to form a one-thought modifier. If followed by a noun, the words should be connected with a hyphen (i.e., *well-done, well-chosen*).

Clicking on "Correct" corrects the problem by adding a hyphen.

Figure 3

Grammar Check: Sample Document

53%
Style: Common ▼ Options ▼ Explain ▼
**Punctuation Error: Word(s) incorrectly capitalized.
Persian Gulf**

Sentence:	Suggestions:	
The war in the **persian gulf** was short.		Correct
		Next
		Done

Word(s) incorrectly capitalized. These are words which should always be capitalized (i.e., *United States, English*). Usually, the word(s) are proper names.

Clicking on "Correct" corrects the problem by adding the proper form of capitalization.

Figure 4

had with *Grammarian* was its fault, a wrong version problem, a system problem that is mine alone, a "once in a blue moon" problem (remember, this is a blue moon month and a year when we have *two* blue moon months!), a current version problem with OS 8.5 or something else entirely.

Briefly, the problem I had with the "lost" disk space was caused by *Flashback* saving a complete copy of every version of my scans and not in any way related to *Grammarian*. As a result of the hard drive space problems and the diagnostic work I had to do to uncover the source of this problem, I did a complete backup, wiped my drive, reformatted in HFS+ and installed 8.5. Here is where a very ironic problem involving *Grammarian* occurred.

OS 8.5 problems

I started with extensions off to install *Grammarian* after reformatting the hard drive. That went fine; *Grammarian* informed me that the install was successful and it would like to be restarted. Okay, I could do that—or could I? I experienced a rare startup conflict. Since I had *Conflict Catcher* (CC) 8.04 installed and the only two extensions enabled were CC 8.04 and *Grammarian* (both Casady & Greene [C & G] products), it was an ironic "no-brainer." Just to be sure, I ran the entire conflict test and sure enough, CC 8.04 agreed that *Grammarian* was the culprit. Okay, I'll just mosey on over to the TCS to look for an update. It was Saturday at noon, and the TCS was still down for maintenance. What about the C & G web site? Remote Access (PPP) crashed and couldn't be opened!?!? Huh? It had been working just fine. I redid all the diagnostic tests that I had done after the conflict problem. *Disk First Aid* and *Norton Disk Doctor* 4.01 still insisted none of their kids did anything wrong or broke anything. Nothing else to do except trash the Remote Access preferences file and reinstall the TCS Explorer script; still didn't work. Remote Access was accessible but not responsive. It was pretty obvious that the script installation didn't connect all the pieces.

After several more tries, I confirmed with some Pi members that despite the TCS still being down, Explorer was operative. I finally got a good script and connected online. C & G had an update that would improve the 8.5 compatibility. Downloaded it with no problems, restarted with extensions off to reinstall *Grammarian* (I had removed it after the conflict and during the TCS Explorer problem). Learning from experience, I used the space bar to stop the restart with extensions on so I could turn off
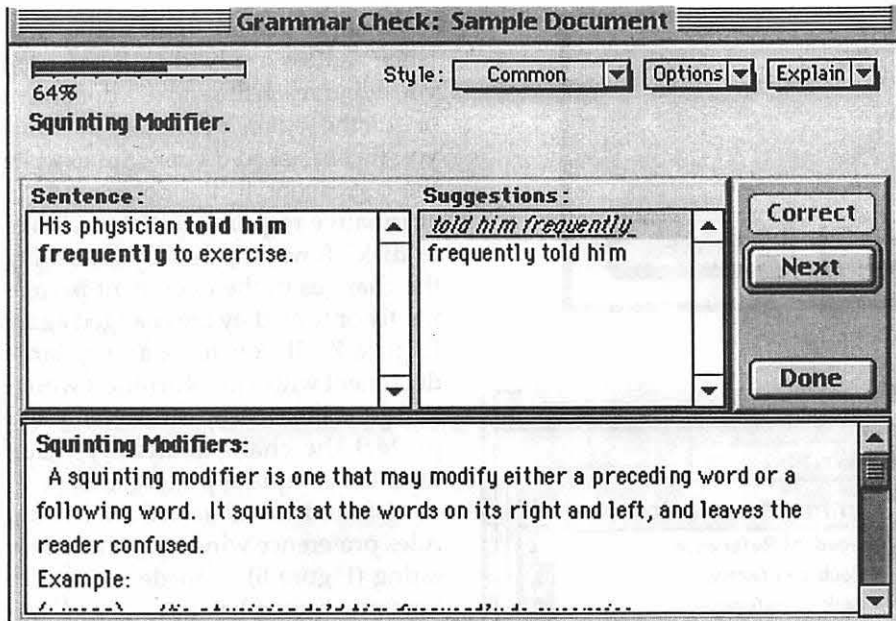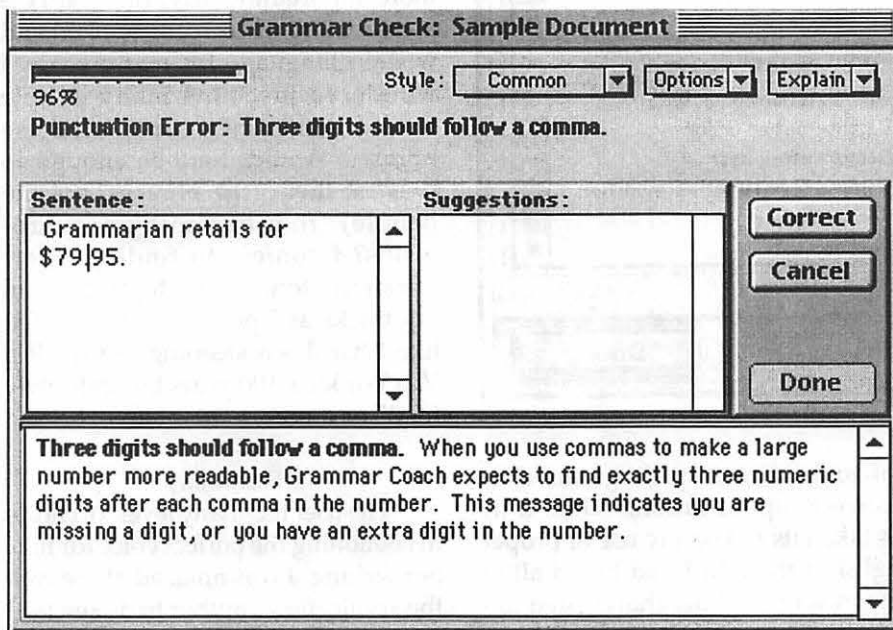
Figure 5

Figure 6

would need grammar checking. If you have an application that is not preconfigured, you can add that to the *Grammarian* menu quite easily. *Grammarian* can also check for many levels of grammar styles, chosen by the user to suit the particular style of writing of a document. For instance, you would want a more formal style for business correspondence than for a story about a little boy who lived on the Mississippi River and ran away from home only to have a series of adventures.

One of the features I like in *Grammarian* is the mini editor window in which it lists the errors found, the text containing the error and an option to correct the error in that window instead of having to track down the sentence yourself. This is especially useful when you are using the noninteractive (silent) mode ("Check all Grammar," Figure 1) and proofreading an entire document. Even better is the fact that the "error" window is corrected and updated immediately, so you are sure the correction has been made. Included in the documentation for *Grammarian* are sample documents for use as a tutorial. These documents

> " *Grammarian* can be used with C & G's *SpellCatcher* for a thorough proofreading approach; but even though *Grammarian* is not a spell checker, it catches many spelling-related errors that are made as a consequence of the wrong word for the context."
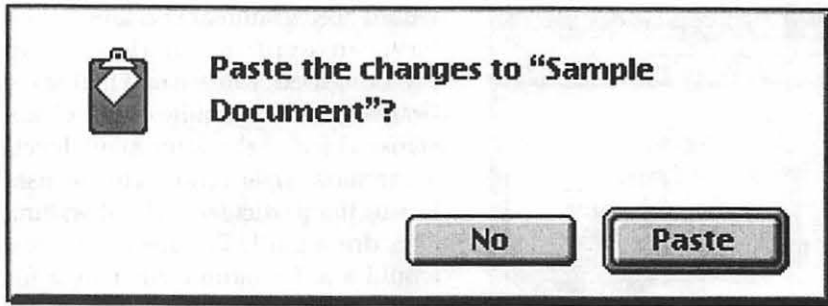
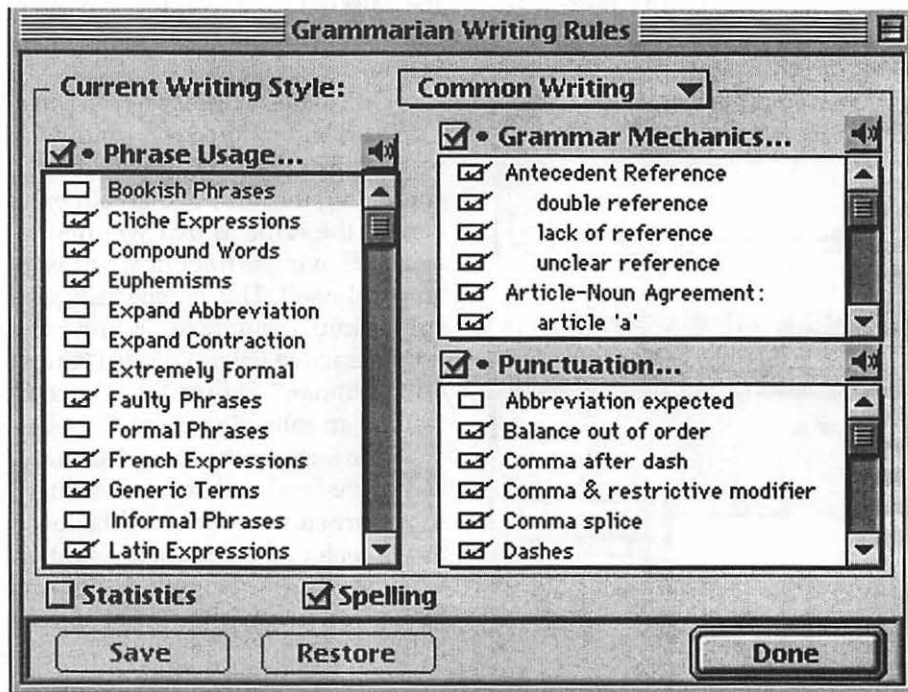*Grammarian* until after I installed the update. That's when I realized I had to restart with the extensions off to install the update. Got the update installed and instead of the successful installation message, I got an "error in installation" message. Tried to unstuff the download and reinstall it only to get the same error message. At this point, I cried "Uncle." Once I have a chance to consult with C & G about what happened, I'll tell you the rest of the story. For now, I will report my experience with *Grammarian* working happily on OS 8.1.

Features

Grammarian comes preconfigured with many options set for the most common software applications that

Figure 7

Figure 8

the changes that are made in the "sentence" editor are held in RAM until you either reach the end of a document or quit the sentence editor. At that time you will be asked if you want to write the corrections to the document. An affirmative response initiates a "save to disk" function, thereby inscribing the changes in the document permanently or until they are changed again (Figure 7). If you have a very large document with a lot of errors, it would be a good idea to stop occasionally and protect the changes already made from the computer poltergeists.

I found the *Grammarian* writing rules preference window rather interesting (Figure 8). It made me realize how much time has passed, as I saw phrases I have not seen in many years; more importantly, I have not heard the pleasantness of correctly spoken and written language for many years. I wondered just how many people would remember some of these phrases. Would there be enough to prevent them (the phrases, not the people) from becoming anachronisms? I confess to finding a few "modern" terms that stopped me in my tracks as I pondered them. I felt like I had been sleeping not for Rip Van Winkle's 100 years but definitely for 25 or more.

Flexibility

The user has many levels of choice in fashioning the perfect voice for his/her writing. I was amazed at the care the application's author had exercised to make this a fully personalized utility. Normally, utility applications don't offer a lot of choices. Everything is so straightforward. *Grammarian* reminded me of how flexibly inflexible or inflexibly flexible language really is. In the process of musing on this, I ran right into the visual epitome of what I was thinking about; it was almost like Jeffrey Robbins, the author, had read my mind and let me run right smack into the sound controls. I had been reflecting on all the choices that could
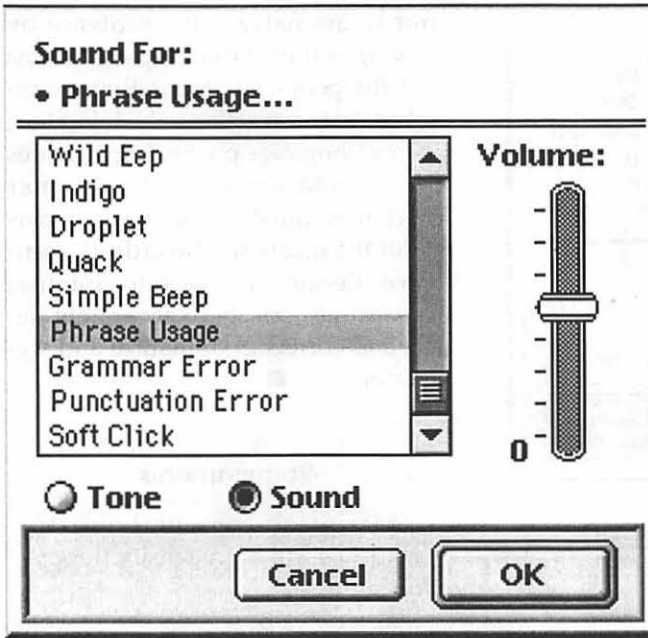
were created with specific errors chosen to demonstrate all of the errors that *Grammarian* can detect and analyze correctly. Notice the check mark in Figure 2 in the "Sentence" window. This shows the precise place of the error. In the "Correction" window, *Grammarian* cites the defining criteria for this error, explains the cure and offers to do it for you in return for a "click."

Grammarian can be used with C & G's *SpellCatcher* for a thorough proofreading approach; but even though *Grammarian* is not a spell checker, it catches many spelling-related errors that are made as a consequence of the wrong word for the context (Figure 3). Figure 4 shows the odd

look to the correct spelling caused by incorrect capitalization. While time has taken its toll on my use of proper English, I thought I had heard all of the forms of modifier that existed until I saw the one illustrated in Figure 5. Never before had I heard of a "squinting modifier." I knew it as a misplaced adverb, but I like "squinting modifier" better. It immediately engages my curiosity, making it more remarkable thus more "rememberable." (Hey, if they can change the names and make up words, so can I!)

Grammarian is certainly no shrinking violet; check out the shameless plug they sneak into Figure 6. All of

Figure 9a

Sound For:
• Phrase Usage...

Wild Eep
Indigo
Droplet
Quack
Simple Beep
Phrase Usage
Grammar Error
Punctuation Error
Soft Click

Volume:

○ Tone   ● Sound

Cancel   OK

Figure 9a

Figure 9b

Sound For:
• Phrase Usage...

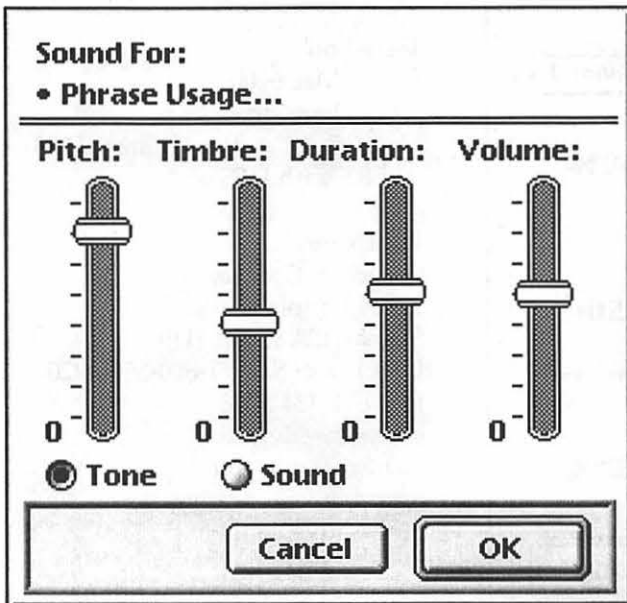Pitch: Timbre: Duration: Volume:

● Tone   ○ Sound

Cancel   OK

Figure 9b

still be made for all the inflexibility of English at times, and there in front of me was the perfect visual representation of that thought—all of the "thermometer" bar controls for sound effects. Not only could you choose the grammar rules you wanted to obey, you could compose your own sounds to go with the mood of the document being written. With all the controls you are given, you could write a "Concerto for Words" if you created a different sound for each rule and remembered to make enough errors that went uncorrected to hear the song (Figure 9). As if that were not enough, there is another customizable menu box to create keyboard shortcuts or macros (Figure 10). What else can they think of to add, I wondered. Then I found it—statistics. Everyone has to throw statistics into everything possible. But what do statistics really have to do with grammar? Somebody somewhere at sometime was so bored that he (yes, "he") created a table showing how the words used in a document would dictate what kind of person would read that document. Nothing about the art of writing, nothing about how interesting the subject was, nothing about anything except counting and crunching numbers!

Remember all the songs that sound like they are over but there's another brief coda? At the definitely last minute, Jeffrey throws in one last customizable feature for "Advanced Users." I'm not going to tell you what it is. You have to find it for yourself. Here's a hint—power users will probably love it.

Impression

Overall, what parts of *Grammarian* I used with OS 8.1, I really liked—the choices, explanations, and other features have the potential to release and polish creativity in writing. Whether it does or not will depend on the writer's perspective. Does he see the glass as half empty or half full? One thing is sure: no one can honestly say they were stuffed into a rigid grammatically correct mold, not when they have this many choices to customize *Grammarian*.

I will be very unhappy if I have to choose between OS 8.5 and *Grammarian* because I feel *Grammarian* has the power to elevate the ordinary writer into a great writer by offering options, suggestions and opportunities for the writer to expand his language skills and tailor his use of language to target specific interest groups. Based on C & G's history of solid software, I suspect the problems I experience were unusual and perhaps even limited to me. If my discussions with them disclose anything that will affect the quality I have seen in *Grammarian* and in their other products, I will write a follow-up to this review. In the meantime, if you have OS 8.1 or lower installed, download a demo copy of *Grammarian* from the C & G web site. While you're there, get a free copy of

Figure 10

Figure 11

and then analyzes the sentence by looking at the relationships of actions and the people or things that are involved in those actions. By doing this, natural language processing provides the foundation for the grammar checker eventually to be able to understand the meaning of words in a sentence. Because of these techniques, *Grammarian* can more accurately detect and correct grammatical and stylistic errors. ■

Mary is a freelance graphic arts/craft designer and teacher in the Washington Metro area and an active member of the Washington Apple Pi. Questions, suggestions, requests, tips, comments and feedback can be emailed to: e.mkeene@tcs.wap.org 🍎

Sherlock Assistant for a friend who has OS 8.5 installed.

How it works (for the curious)

The natural language grammar checker developed by Linguisoft differs from existing grammar checkers on the market in several ways. Today, grammar checkers use a series of heuristics or pattern matching to flag problems in a sentence. *Grammarian* uses natural language processing to parse sentences at a deeper logical level. Using state-of-the-art natural language processing techniques, the grammar checker first builds a complete analysis (parse) of the syntax of the sentence

Universal Serial Bus (USB) Revisited
Technobabble Lite

IN THE March/April Journal, I wrote about the Universal Serial Bus (USB) and what Apple calls Firewire*. Each is one the new methodologies to connect peripherals to what are now called transparent Macintosh computers; the collection consisting, at the moment, of the iMac and the blue and white G3 mini-tower. By the time you read this, there could be at least one more. I want to expand on the coverage of USB. What I will do is summarize what was covered last time, delve a bit deeper into what is going on that you cannot see, and touch on the new cabling that connects USB devices. Let's start by revisiting the why of USB.

So Much To Attach

I asked our instructors to poll their students to see what it is that they attach to a computer. Students in our introductory classes have the standard attachments: modem, printer, keyboard, mouse, maybe a ZIP drive. But, from our upper level courses, the list grew appreciably. To all the above, add a Jaz drive, a second hard drive, a scanner, an internal CD reader, a CD-R burner, and a tablets. We have several members who use more than one printer to proof a job. Add the internal floppy drive and you have peripherals attached to the internal and external SCSI bus, two serial port connections, several devices connected to the ADB port and one to the floppy connector. You are over the limit of seven devices for typical SCSI chain, filled your serial ports and have a load on your ADB line.

Now picture the tangle of wiring that is flowing around your computer.

You have those nice fat inflexible SCSI cables, terminators, cable matching games and SCSI IDs to juggle. Don't forget that some devices like a higher SCSI number than others, and that there is no way to change devices without shutting the whole contraption down, reconfiguring, and coming up again. As we discussed last time, there has to be a better way to manage the wide range of peripheral devices with which a modern Macintosh user works.

In Search of a Rational Transportation System

So why not build on something like SCSI or the Apple Desktop Bus (ADB) instead of inventing an entirely new standard? Put simply, the existing standards are not up to the task for today's computers. It makes little sense to stay with a connection system that only allows a small number of devices. A more global solution than the limited number of attachments that can be made to either SCSI with its thick cables or the low bandwidth of ADB is needed. Handing very high bandwidth devices, like high-end digital cameras or super-fast hard drives, adds noticeable cost to a system mostly intended for low-band-width devices like keyboards and mice, as well as for medium-bandwidth devices like floppy drives, and scanners. The ability to attach and remove devices while the computer is running, plug-and-play, and reducing that nest of cables round out the list of wants. Bundle these goals together and you have the design criteria behind the Universal Serial Bus. Let's poke around inside USB to see how all this works.

USB Is Serial

Each USB connector has only four wires—two wires twisted together for data transfer, one for power to the devices, and one as an electrical ground. The serial design allows for thin wires, eliminating those nasty thick cables. The exact length of cables depends on the wiring used within them. Heavier-duty wires can hold an electrical charge over greater distances with no distortions and therefore allow longer cables, but the faster data is transferred, the shorter the cable should be before loss of signal becomes a problem. A good rule of thumb is that no single segment of cable should be longer than 5 meters.

USB Is Fast

USB has two speed settings, low-speed and full-speed. Low-speed is designed for low-bandwidth peripherals like keyboards and mice and is limited to 1.5 megabits per second. Thus, these lower-speed devices don't need twisted-pair wires for data transfer or shielded wires; however, their cable segments can't be as long as twisted-pair, shielded, full-speed cables. Too many low-speed devices accessing the bus too often can degrade overall performance, since the electrical signals on such devices aren't as robust. So, the USB specification explicitly prohibits low-speed stand-alone cables. Any extension cable you find is suitable for either full-speed or low-speed devices. The full-speed cables allow not only for stand-alone cables of varying lengths but for faster transfers, up to a bus maximum of twelve megabits per second, or 1.5 megabytes per second—eight times faster than the low-speed mode.

USB Is Expandable

USB providing a maximum of 127 peripherals per computer. Computers with slots can theoretically have multiple USB host interfaces, a future development with interesting potential. Unlike the older serial ports that sup

port a single device each, or the SCSI-style daisy-chain where adding or removing any device disrupts the entire bus, USB supports special devices called hubs that contain attachment points for other devices. Each hub can provide connections for several other devices, including other hubs, until you have enough attachment points to connect everything you desire.

Like ADB, the USB carries enough power for some devices, though others may need more power than the bus provides. Each USB attachment port on the computer has to provide 500 milliamperes (mA) of current; each USB device must not count on receiving more than 100 mA of power from the USB. Hubs themselves may either draw power from the USB itself (a bus-powered hub), or they can be self-powered and plug into an electrical outlet. You may see the math already working here. Each attachment port on the computer provides 100 mA for a bus-powered hub and for each of four ports attached to it. However, each attachment point on such a bus-powered hub can draw a maximum of 100 mA because if all the devices are active, that's all the power available. If you tried to attach another bus-powered hub to the first bus-powered hub, it wouldn't be able to draw enough power to run any devices attached to it, pretty much defeating the point of adding a hub.

That's where self-powered hubs come in. A self-powered hub has to provide the full 500 mA of power to each of its attachment ports. Self-powered hubs can have as many attachment points as they wish; bus-powered hubs are limited to four ports each because of the power requirements. Each attachment point on a self-powered hub is enough to drive a bus-powered hub, so everything works fine as long as you don't connect one bus-powered hub directly to another bus-powered hub.

Other than this minor power-related problem, hooking up multiple

devices is almost trivial with USB. If you run out of attachment points, you get a hub and add more ports. If you fill those ports up, get more hubs. Two ports allow more than two devices, because some devices include functionality as well as built-in hubs. The Apple USB Keyboard, for example, is both a keyboard and a bus-powered hub with two attachment ports, one of which is usually connected to the USB mouse. That leaves one port on the keyboard and one port on the computer for other devices. (Be sure _not_ to connect a bus-powered hub to the keyboard, since the keyboard is already a bus-powered hub.)

USB Configures Itself

Devices on the USB are not only easy to add, they're self-configuring. All devices are hot-swappable. Adding or removing any particular device doesn't affect any of the others, unless, of course, you add or remove a hub, but USB is ready for that as well.

USB is a polled bus, meaning that every so many milliseconds, the host controller (your Macintosh) asks each attached device, including hubs, if there's anything new to report. The devices can't initiate communications with the host; they must wait for the host to poll them. If a device does not respond after a specified time and for a given number of attempts, the host accepts that the device has gone away—it's been unplugged or has lost power or is otherwise no longer functioning. Once the host knows this, it communicates through software that the device is no longer available. Any new requests to that device are refused with an appropriate error. There is no concept of an old device reappearing, though, so you can't unplug a device and plug it back in and expect everything to stay unchanged.

You don't have to worry about drivers, either, as long as they're installed. Since USB explicitly allows devices to appear and disappear at any time, the specification also forces the

software for the host (in this case, the USB Manager in the Mac OS) to load drivers for newly-attached peripherals as they're discovered, and optionally to unload those drivers when the devices disappear. You don't have to restart to load a driver for a new peripheral, but you do need to have the driver installed before you plug in the device.

The electrical connections on USB are terminated on each cable and in the devices, preventing any transmission problems and eliminating the burden of external terminators that have plagued SCSI devices for years. Since the specification explicitly requires devices to handle these situations, and forces the host controller to adapt to a changing bus, actual users get real plug-and-play. You can create a complex network of hubs and peripherals at any time, and even unplug the whole mess from the computer and plug it back in, and everything just works. And you never fry anything. How cool is that?

The Mechanicals—USB Prevents Common Errors

USB may eliminate some of the SCSI headaches like termination, but you're probably thinking you can screw it up if you try hard enough. And you can—but you have to work at it. What portions of USB aren't self-configuring are intentionally designed to be difficult to do incorrectly.

For example, look at those USB connectors on your iMac or transparent G3. Each connector is a small rectangle with all four wires in a neat horizontal line. But if you get a stand-alone cable for connecting a hub to the computer, you'll notice the plug on the other end is different—it has the four wires arranged as the four corners of a rectangle. You can't plug that connector into the computer, only into the back of a hub or other device. The hub's "outgoing" connectors, for other devices, look just like the connectors on the computer.

The designers did this on purpose. The rectangular connector at the computer with all four wires in a line is a type A connector, and the squarish connector with the four wires as corners of a rectangle is a type B connector. There are plugs and receptacles for both type A and type B.

It may seem like deliberate confusion, but it's not. USB uses a "networked star" topology. This allows any attachment point to be a hub offering multiple attachment points. If all the connectors were the same, it would be really easy in a complex USB setup to accidentally connect the output ports on two hubs together, creating a loop in the network that melts the USB Manager's software-controlled brain. Two different connectors prevent this. Every receptacle into which you plug downstream devices must be a type A receptacle and take only type A plugs—like the connectors on the computer or those on a hub. If a cable is not permanently attached to a device, though, the upstream attachment point (where the device gets its data from) must be a type B receptacle and accept only type B plugs. There's nothing special about the cables electrically, but the design makes it physically impossible to create a loop on the network without working really hard at it. Many peripherals have permanently attached cables, like the USB keyboard, eliminating another possible way of muddling your bus topology.

These rules prohibit some cables and devices that are physically possible because their existence would break the rules. The USB specification explicitly disallows any cable with type A plugs or type B receptacles at both ends—such a cable would allow connecting two type A receptacles to each other, making the forbidden loop. As noted earlier, all stand-alone cables must be full-speed cables; longer low-speed cables allow for too much interference or signal degradation, so all low-speed peripherals must by rule

come with attached cables. And, while it might not seem intuitive, the specification also prohibits USB "extension" cables—any cable with a type A or B plug on one end and a receptacle of the same type on the other end. If you had more than one such extension cable, you could easily (and without trying) create a single cable segment longer than five meters, making any communications on the bus from that point downstream unreliable. While such cables may exist, you really, really wants you to use hubs for that purpose, not extension cables, especially if you are going to connect low-speed devices.

> "USB may eliminate some of the SCSI headaches like termination, but you're probably thinking you can screw it up if you try hard enough. And you can—but you have to work at it. "

USB Handles Multiple Transfer Types

USB includes four different, ranked ways of transferring information to accommodate as many different kinds of devices as possible.

■ Control transfers are short, irregularly occurring requests for action or response by a device. They're most often used to issue commands or get status from a device, such as asking a scanner what resolutions it supports or telling a floppy drive to eject a disk. Anything that tells a device to do something or asks

what's going on is likely to be a control transfer. The results of a request are probably a different type of transfer—a command to start scanning might be a control transfer, but the scanned image data would likely be a bulk transfer.

■ Bulk transfers are irregularly occurring requests for data in large amounts that isn't time sensitive. The data from a disk or scanner or digital camera just needs to get there; it's not important that the data arrive in a few milliseconds. Bulk transfers are for this "get it there soon but don't stop the time-sensitive stuff" data. USB guarantees the delivery of bulk data, as any data packets with errors in them are retried if due to occasional failure. However, bulk transfers have no guarantees on bandwidth or latency, the time the device spends waiting for available bus capacity. Only full-speed devices may initiate bulk transfers.

■ Interrupt transfers are for small amounts of data that don't occur "often" in bus terms (as in every millisecond) but need attention when they do happen. USB guarantees an interrupt transfer will start within a specified amount of time. Here is an example. USB can transfer the data on an entire 1.4MB floppy in around one second, but no floppy drive in existence can write an entire disk that fast. If you press <Command-Period> to stop copying a file to a USB floppy disk, you want your keystroke to come through immediately even though the disk data is transferring over the same USB at the same time. You don't want that <Command-Period> keypress waiting behind a disk's bulk transfer. If your are a gamer and a joystick didn't respond for a second or two you'd hit the roof (right after your simulated spaceship creates a new crater on the Martian surface).

USB Is Isochronous

The fourth transfer type is also a FireWire keywords—isochronous (pronounced "eye-SOCK- ruh-nuss"). Isochronous most simply means "time-dependent." An isochronous bus, like USB or FireWire, guarantees the delivery of data in a time-sensitive fashion. USB speakers are a great example of an isochronous transfer. As sound data is generated, it needs to get to the speakers absolutely as fast as possible. If there's a half-second pause between packets every few seconds, the audio is unusable and maddening. A live video camera has similar requirements. Getting a bit more technical, an isochronous bus guarantees bandwidth—it promises that a device performing an approved isochronous transfer can always transfer a given number of bits every second. Unlike bulk transfers that happen "whenever," or interrupt transfers that happen immediately but are small, isochronous transfers can move large amounts of data on the bus immediately.

The trade-off here is reliability. USB specifically declares that any errors in isochronous data are not retried; they're skipped and everyone moves along. There's no other good way to do it—if a video camera is streaming data across the bus, it can't "freeze" the image until the bus is ready to resolve errors, because the image in front of the lens doesn't stop. If the bus can't transfer the data in that particular packet for any reason, the packet is simply lost. Guaranteed data transfers require bulk or interrupt transfers.

Isochronous data can be much larger than interrupt data. Each isochronous data packet can transfer up to 1023 bytes, compared to 64 in an interrupt transfer packet. However, USB guarantees those 64-byte interrupt packets get there, and they're retried if they don't. There is no "perfect" transfer type in USB that guarantees delivery of large quantities of time-sensitive data, but USB does allow developers to pick their trade-offs, and to use multiple transfer types if necessary. USB requires that at least 10% of each one millisecond frame be reserved for control and bulk transfers, leaving plenty of room for isochronous and interrupt data while never shutting down the bus's ability to shut off devices or keep lower-priority data moving.

> "Don't forget that some devices like a higher SCSI number than others . . . . As we discussed last time, there has to be a better way to manage the wide range of peripheral devices with which a modern Macintosh user works."

USB Handles Multiple Device Types

USB helps organize the wide world of devices through the notion of device classes. Most devices, while unique in many ways, fit into broad categories— human interface devices, mass storage devices, printers, communication devices, power devices, and so forth. A "human interface device" could be a keyboard, a trackball, a mouse, or a joystick. As different as those devices are, they all share common characteristics: the need for both control and interrupt transfers, no need for bulk or isochronous transfers, the potential need for country identifiers in case the input is language-specific (as with keyboards), and so forth.

The USB implementors have formed a Device Working Group to help create broad USB Device Class Specifications. A class driver controls all devices that adhere to a given class specification. The available standards apply to those classes of devices already identified—the ones listed above as well as audio, monitor devices, physical interface devices— even a bridge to IrDA infrared devices. The Mac OS's USB Manager includes class drivers for hubs and for human interface devices (HIDs). That's why any HID that adheres to the published standard is truly plug-and- play: the OS already has a driver for it. If that device supports individual features beyond the HID class specification that any Macintosh software wants to exploit, the manufacturer still needs to write a device-specific driver so Macintosh software has a way to access those features.

Mac OS USB Is Evolving

Fortunately, the Mac OS services for the Universal Serial Bus are growing rapidly. As the software evolves and more peripherals arrive, expect to see more built-in class drivers. For example, if the Mac OS included a built-in mass storage class driver, devices like Zip drives or CD-ROM burners would be truly plug-and-play and not require any kind of disk-based driver at all. The number and scope of class specifications for USB expand each month. Apple is unlikely to include every possible class driver with the OS, but even a few more could dramatically improve the user experience—especially for first-time Mac users. USB wants to be exactly where it is—a low-cost, royalty-free, easy-to-implement peripheral bus for any kind of peripheral that doesn't need hard disk speeds. ■ —Lorin Evans

Best of the TCS

The Lone Ranger Rides Again!
(continued)

P10. To all old techies. I had a crystal set that I used to listen to late at night in my upstairs room in St. Joseph, MO. The year was about 1934.

P8. >one that used a blue blade double edge razor blade and the lead from a pencil.

Once upon a time I had one of those, too. A friend who was a radio ham showed me how, he had made them in the Army in the South Pacific in WW II, so his buddies could listen to whatever was on the air.

But I've forgotten how to make them — how many turns on the coil, how to connect the blade and "crystal" (pencil lead), etc. (I think the original used a toilet paper roll to wind the coil on.) Do you remember the details, or have the instructions saved somewhere?

One of these really ought to be in the Smithsonian History & Technology museum!

P8. >The year was about 1934.

Wow! Old-timer...you sure got me beat. I wasn't even born until four years after that! (But I still remember horse-drawn milk wagons!)

P2. >my favorite was one that used a blue blade double edge razor blade and the lead from a pencil.

Ah, a military model. Yes, they are expensive, but so are the components.

P2. >But I still remember horse-drawn milk wagons!

I do, too; I went to Lancaster, PA, last year

P8. Ah, but the wagons I remember

came up our street. The horse did indeed know where to stop...in front of our house, for example. And in summer the milkman often let us kids have a bit of ice. Wonderful! We could pat the horse, too.

P2. >Ah, but the wagons I remember came up our street.

I'm younger than you are (your Web site picture is useful!) and remember getting milk fresh from the factory; we lived too far from any town for even a horse-drawn wagon. The first house I ever lived in had a dirt floor.

In short, what you are discussing is not only a matter of time, but also wealth.

P1. >remember getting milk fresh from the factory...

When I lived at my grandmother's, we got our milk from the cows across the street. The Codlings, who lived there, had a barn and cows, and supplied milk. They walked the cows past the edge of town (not very far) to pasture each day.

P4. >[fresh milk]

One of my family's stories has always been that the neighbor who had the property behind ours was pretty upset to hear that we were moving in, because it meant that she would no longer have room to graze her cow. She had been using our little plot of land in addition to her own, but now she would have to get rid of the cow. What makes this an interesting anecdote is that the house was (and is) in New York City.

P7. >But I still remember horse-drawn milk wagons!

I was born in '51 and grew up in what's now known as "Potomac" (the address was Route 1, Rockville back then). The delivery vehicles burned gasoline instead of oats, but we had separate ones for milk, eggs and even seltzer. My grandfather grew up in Northeast (Washington, DC). He helped to raise oysters in the soupy

mud of his basement, and used to tell me about hucksters who sold all sorts of things from pushcarts (including deviled crabs!). The hucksters would "sing out" about their wares, very much like the way stadium refreshments vendors do.

P8. >getting milk fresh from the factory;...

Neat! And were you the one to go out and fetch the supply?

I'll always remember the first time I had "real" milk fresh from the cow: I had had no idea that milk came with so much cream on it! And that wasn't any fancy producer cow, just a run-of-the-pasture "old bossy" type cow!

In my first full-time job as a newsie, I was a small-town paper's farm reporter. One of our local success stories was a dairy farmer who realized that people were fed up with supermarket milk. His principal problem thereafter was managing the traffic in his driveway as the city folk lined up to buy jugs of the real thing!

As for the milk wagon — I had never thought of it as having anything to do with wealth (we didn't have much either), it was just the normal way milk got delivered at that time (the 1940s). Of course, I saw it through the eyes of a boy...but one who thought country folk were lucky: real cows! fresh vegetables! creeks and pastures to play in! water from a real pump! Silly as it may seem to you, I still feel a good deal the same way. That job as a farm reporter was one of the best jobs I ever had.

P9. >connect the blade and "crystal" (pencil lead)...

The reason I like the blue blade was its simplicity. No coil was needed. You tuned it by moving the lead to different parts of blade.

> Do you remember the details... ummm. no. kind of...

I think antenna went to screw that held blue blade to wood. Lead core from pencil was wrapped in paper clip end, middle of paper clip was screwed

to board and end went to one line of earphone, other end of earphone went to ground. You tuned by moving lead point to different parts of blade.

The part I am really fuzzy on is antenna/ground. I may have them reversed. Also, it only worked on blue blades. The stainless steel blades would not work.

I'd guess I got plans from Boys Life or Popular Science.

The following appeared on the Open Forum board (C1 B28) in late December as the "Sailing Underwater" thread. The premise of the first paragraph seemed borne out as, one by one, the former underwater sailors surfaced to add their memories.

Observer: A fair number of Pi-sters seem to have some background in submarines, and, by definition, members of a computer users' club are more-or-less techno-nuts.

Now, therefore, I commend to your attention a new book: Blind Man's Bluff, by Sherry Sontag and Christopher Drew, with Annette Lawrence Drew, published by Public Affairs™, a member of the Perseus Books Group. ISBN 1 - 891620-08-8. It's "The untold story of American submarine espionage," according to the jacket.

I found it fascinating—so much so that I've hardly emerged from my chair for two days. Among other tales is that of the nuclear sub Halibut. Included in the goodies installed in the boat's "Bat Cave" was a Univac 1124 intended to process all the intelligence info this amazing spook sub was supposed to gather. In a view of things to come, the book observes: "There were never-ending computer problems. The computer's 'Interleaf' operating system needed more than the computer's 32 kilobytes of memory to operate." And they didn't even have Bill Gates to blame it on!

Sailor 1: Having spent 20 years driving boats around . . . you will find a lot of what Blind Man's Bluff contains fascinating reading . . . but somewhat sensationalized. I've been involved in a number of operations . . . and read reports of a number of others; and it isnt' quite as hairy as one might imagine from the book. It is fascinating reading though, and gives a glimpse (albeit a slightly inaccurate one) of life submerged. I found the description of what happened to the Scorpion interesting reading . . . but it draws a lot of conclusions from precious little fact. I guess it could have happened that way (hot run/hot torpedo caused by maintenance) but normally that maintenance was performed closer to arrival at home port; not 6 or 8 days out as the Scorpion was when she went down.

Despite all the efforts and money expended . . . there isn't a real clear picture of what exactly did happen. Facts are few . . . and you can draw any of several conclusions based on how you interpret them and how you mix in knowledge of operating procedures and CO tendencies; but we'll never know for sure.

Still a good read though, comes closer than almost anything I've read to giving the non-nuke a glimpse of what it's like.

Sailor 2: IMHO, the best story on life aboard submarines is "Das Boot", which translates to "The Boat" in English...

It is a movie based on the real-life events of a German U-Boat, stars Juergen Prochnow.

The DVD special edition is packed with deleted material, and is 209 minutes long. It is also in Digital Dolby 5.1, and if you have this type of setup at home, this is a _reference_ DVD for DD 5.1. You won't find many better...

This is an excellent movie that I highly recommend to anyone even remotely interested in the subject.

If you have DVD, and a full Dolby

Digital 5.1 setup, you are in for an audio treat...

Sailor 3: > IMHO, the best story on life aboard submarines is "Das Boot", which translates to "The Boat" in english...

I agree; I have the director's cut but in tape format rather than DVD. The whole thing is in German with English subtitles. It feels so real you can smell the stink.

Sailor 1: >Das Boot

Yup, one of the most realistic overall depictions of life at sea I've ever read and the movie didn't hide the small size/cramped quarters like Hunt for Red October and the old John Wayne submarine flicks did. It's set in a different time though . . . there is a world of difference between the way a diesel operated back in WWII and how a nuke works. Sometimes I think that they were better submarine drivers back then . . . unlimited amounts of endurance and high speed with more modern SSN's tends to forgive a lot of mistakes.

Sailor 2: >A fair number of Pi-sters seem to have some background in submarines...

Thanks for the book suggestion!

Actually, my job was to _find_ submarines, and if necessary, turn them into scrap metal.

Oh, an update on a subject I started a long time ago. The USS Belknap CG-26. Unfortunately, the Navy carried out their promise (to a massive amount of protest, from what I understand). They sunk her on September 24th, 1998. She is now a shelter for homeless fishes :(

Sailor 3: >Included in the goodies installed in the boat's "Bat Cave" was a Univac 1124....

I was involved in the conversion of a Navy analog missile fire control system (Talos GMFCS) to an experimental digital system in 1964. The ex-

perimental system used a Univac 18-bit computer with 24K of memory. The production system, installed about 4 years later used a Univac 18-bit computer with 40K of memory. Three cabinets (cpu, memory, tape) replaced the seven that the analog system took but two additonal cabinets were required with the digital system to perform the analog to digital and digital to analog conversion.

Sailor 1: When my ship went through the shipyard in 85-86 we got the latest and greatest navigation system called an ESGN. It is an inertial nav system but instead of having a gyro on bearings to stabilize the measurement platform it uses an electrically levitated ball spinning at around 250,000 rpm or so. The whole thing was run by a single board computer with a Motorola 68000 and 2 megs of RAM on it. This thing was the single greatest electronic device I ever had during my career at sea. It didn't have all the bells and whistles that the sonar, fire control, and ESM systems did . . . but had bullet proof reliability and always knew where the ship was. I was continually amazed at how reliably it worked in contrast to either the SINS/DMINS it replaced or the much fancier sonar/fire control systems.

Sailor 4: Glad to hear you liked the ESGN. I worked for Honeywell from 69-84 and was proud of the ESGN effort.

Sailor 1: Cool. I was on Guitarro (the first 637 to get one . . . we may have even been the OPEVAL platform) and we had lots of factory types out back then to visit . . . can't remember your face from back then though. I was the Navigator at the time.

Sailor 2: >I was continually amazed at how reliably it worked in contrast to either the SINS/DMINS it replaced or the much fancier sonar/fire control systems.

"... the neighbor who had the property behind ours was pretty upset to hear that we were moving in, because it meant that she would no longer have room to graze her cow. She had been using our little plot of land in addition to her own, but now she would have to get rid of the cow. What makes this an interesting anecdote is that the house was (and is) in New York City."

Hey! I had 100% uptime on _both_ of the ships I was on! Left more time for waxing passageways and chipping slant-decks :(

Sailor 2: Didn't you guys also do the Mk116 Mod 3 UWFCS?

Sailor 4: Yes, but that was in our outfit on the west coast and I have little knowledge about it. I did think Mother Honey was a good technical outfit and I am pleased to have been a part of it for 15 years.

Sailor 1: >uptime
Obviously you never deployed with a WLQ-4 Sea Nymph N Suite if you had 100 percent uptime. Good thing that darned thing had so many redundant receivers, processors and displays . . . there were always broken ones. It was cool when it worked; but was only at 100% capability 5% of the time, ran around 90 or so the remain-

der . . . which was good enough with the built in redundancy.

Sailor 2: >Yes, but that was in our outfit on the west coast and I have little knowledge about it. I did think Mother Honey was a good technical outfit and I am pleased to have been a part of it for 15 years.

There were only two Mod-3's in existance. One in Honeywell's labs, and the other was on the USS Belknap. Being heavily modified by collision with an aircraft carrier, and nearly destroyed (well, actually was destroyed - A Humpty Dumpty story with a happy ending) has a way of netting a ship some 'odd' equipment :)

Sailor 2: >Obviously you never deployed with a WLQ-4 Sea Nymph N Suite if you had 100 percent uptime....
No, but what I did work with was the worlds largest, and most complex, single-purpose electronic system. I taught maintenance on it too :)
That's why my brain is so full of kibbles & bits :)

Sailor 1: We bubbleheads have to have smaller and complex systems you see . . . not as much space as a skimmer so we have to be more efficient in our use of space.
Another thing that always struck me as funny was that the active sonar decibel output on a submarine was a bunch bigger than anything a surface sonar has . . . and submarines almost never use active sonar. I guess the reduced cavitation due to higher water pressure was too much for the designers and all that audio power was installed despite practically no chance it would be used.

Sailor 5: >No, but what I did work with was the world's largest, and most complex, single-purpose electronic system.
You ran the phone company??? (Or, for James Coburn fans, The Phone Company???) ∎

Changing Faces: New Mac Logos

By Lawrence I. Charters

ONCE UPON a time, when Apple Computer, Inc., wanted to turn the Macintosh into a ubiquitous, "generic" computer, the company created Mac OS. Since the very beginning, Macintosh operating systems were called "System somethingorother," but after System 7.5.3, Apple decided the operating system should be known as Mac OS, and a suitably generic logo, without the trademark apple and without any of the usual Apple corporate colors, came into being.

The Mac OS logo was useful: for the first time, Macintosh users had a name for their operating system. Macintosh clone makers liked the name and the logo, since the new operating system put up a nice, friendly blue, black and white "splash screen" featuring one, two or three smiling faces, depending on how you looked at it. Unlike Microsoft's Windows logo, the clone makers also liked the fact that the Mac OS logo didn't have the name of another company greeting the user at every boot. Everything was sunny and bright.

Until Steve Jobs, a non-Apple employee, engineered a palace coup, toppled the Apple management, and wiped out the Macintosh clone market. The "new" Apple quickly went through several operating system marketing schemes that made no sense to anyone outside of Apple. Finally, in 1998, Apple decided that the future would bring two and a half Apple operating systems: Mac OS, Mac OS X [Ten], and Mac OS X Server [the "half" part].

Mac OS, in the form of Mac OS 8, 8.1, 8.5 and 8.5.1, has proven to be a strong, resilient foundation for the "new" Apple, fueling a wave of new PowerBooks plus the colorful iMac and "blue and white" Power Mac G3 systems. Things got a bit more interesting with the early 1999 release of Mac OS X; despite the apparent similarity between "Mac OS" and "Mac

> "Unlike Microsoft's Windows logo, the clone makers also liked the fact that the Mac OS logo didn't have the name of another company greeting the user at every boot. Everything was sunny and bright."

OS X," the latter — a variant of UNIX — is not even remotely related to the former.

Apparently Apple agrees, for in early 1999 Apple released a set of new guidelines and licenses for developers:

Out: the Mac OS logo

In: a simplified variant of the former logo, in both vertical and horizontal versions, with just the word "Mac."

The new guidelines even have diagrams showing how the new logo can be placed on software packages. This ever so helpful document doesn't even mention one big benefit: the new logo can be used for either Mac OS or for the new Mac OS X.

Out: the beloved, friendly Mac OS logo.

Still in: while not authorized for hardware or software packaging, Apple does encourage developers, user groups and "partners" to use this logo on their Web sites.
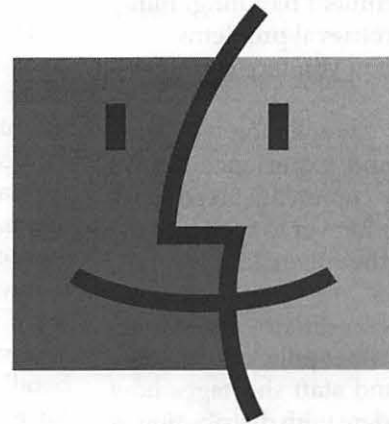
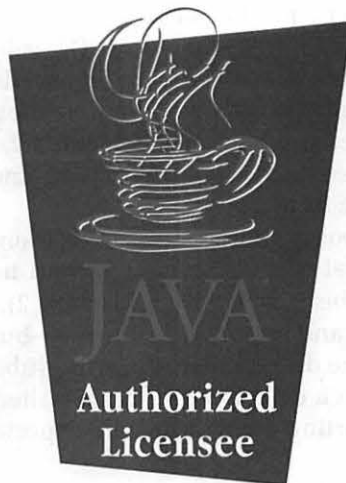About the same time, however, Apple also released guidance to developers, user groups and "partners" on the use of logos on Web sites. The legal elements remind all parties that the Apple logo belongs to Apple, and can't be used by anyone else without Apple's permission. But "guidance" included with the legal language suggests how developers, user groups and "partners" can "enhance" their Web sites with a new, nice, color banner showing a Mac OS box, an Apple corporate apple, and the phrase, "Works best with Mac OS 8.5."

Mac OS is dead. Long live Mac OS. ∎

In: the new, simplified "Mac" logo, in convenient horizontal and vertical orientations. The new logo retains the blue, black and white coloring of the Mac OS logo.

Close Encounters of the Paperwork Kind

by Tom Herlihy

IMAGINE YOURSELF as a beleaguered bureaucrat, awash in a sea of paper. Easy to do for many of us who toil for Uncle Sam. If this is your fate, rejoice, for the marvels of the Macintosh can set you free.

That is, the marvels of the Mac, UserLand *Frontier*, Adobe *Acrobat*, *Fetch*, and a fax modem package such as Global Village Fax Center—all working together to spare you hardcopy document handling, filing, and storage/retrieval problems.

The problem you face could be—

(1) You work on agency rulemaking and experience delays because many comments faxed in by the public take forever to appear in the docket file of the rulemaking;

(2) You "coordinate" legislative, regulatory, or other policy documents for a living, and staff shortages now seriously interfere with distribution of multiple copies to multiple offices, some located blocks away in another building; or

(3) You are in charge of maintaining a central directory of "Departmental Instructions" for a far-flung set of regional entities, and a welter of different word-processing formats complicates electronic posting unnecessarily.

These are the types of headache that try one's soul. These and many similar problems interfere with getting the actual work accomplished, and yet they seem to become the central issue all too often. As helpful as the IRM team may be, the cost and delays of "big solutions" may discourage putting the problem in professional hands. Or you may work for a small group that has no IRM support group at all. This is a situation that calls for self-help.

Wouldn't it be great if the steady stream of documents you normally process in one way or another somehow magically appeared on a Web site or agency server with no manual processing? You (and others) could view them instantly from your desktop machine, and then handle them electronically—attaching them to e-mail with a standard form that seeks comments, posting them to a dockets Web site accessible to the public and your fellow analysts, or simply forwarding them to an electronic storage point. Moreover, depending on the form of handling you use (e-mail forwarding, for example), it could automatically generate a complete record of the document's disposition—a searchable electronic log of office action—that is created effortlessly as a by-product of circulation

All this is in reach now, with existing software applications (which are even free in some cases). To demonstrate this new process clearly, let's take a specific example from the federal government—the policy clearance of a legislative proposal that will be sent to Congress after the agencies involved have reviewed and approved it. Let's imagine that the document is 15 pages long, includes a descriptive bar chart in the supporting analysis, and has to be seen by five cabinet agencies. Let's further stipulate that the "originating entity" does not have to employ new technology or techniques to make this process work.

Today the agency that creates such a document (in *WordPerfect* for *Windows*, perhaps) typically faxes the 15-page item to the other five agencies— to a fax machine that is designated as the "receipt point" for incoming documents of this type. This is actually very common, accepted practice in federal agencies, but the unfortunate result is that each receiving agency has to work from the hardcopy that arrives at the tray of the fax machine. Fortunately, solving this basic problem does not require a change in practice by the originating entity.

The "hands off" automation starts exactly at this stage. Instead of using a true fax machine to receive hardcopy documents, you instead employ a Mac, a fax modem, and the accompanying software to capture the incoming facsimile to disk. Let's call this "Machine 1" and declare that its entire job is to capture the fax and store in on disk with a unique name (that's a job the fax modem software does easily). Already, you've got the document in electronic form.

You maintain a second Macintosh on the office network to do all the fancy work. Let's call it "Machine 2." This machine runs a set of programs and drivers to process the incoming fax:

(1) Using the free AppleShare software available on every Mac, you mount the Machine 1 hard disk on Machine 2, so that it can copy over each incoming fax as it arrives.

(2) Using the fax modem software a second time (this time located on Machine 2), you "print" out a copy of the fax—but in this situation you actually substitute Adobe *Acrobat's* "PDFWriter" software that produces a PDF (portable document format) file

on disk instead of sending the print job to the printer. This is what you want—the fax remains in electronic form but it has now been transformed into a universally available format that is common on the web and elsewhere.

(3) Last, using AppleShare again (or *Fetch* if you are placing the completed PDF files on a UNIX Web site), you place each item in a directory on another machine in the office (let's call it "Machine 3"), and clean up before the next processing round (deleting extraneous files left on Machine 2, for example).

Making all this happen automatically is where UserLand *Frontier* (version 4.2.3 or 5.x) comes in. This is an amazing product, written and constantly improved by Dave Winer and Doug Baron. It is described in all its wondrous detail and capability in Matt Neuberg's "Frontier: The Definitive Guide" (O'Reilly and Associates, 1998) (go to http://www.oreilly.com/catalog/frontier for a description of the book). Although this scripting tool (really much more and dubbed by Neuberg as the "Ultimate Macintosh Productivity Tool") has once again become a commercial product, a free, totally capable version remains on the web site as version 5.0.1. It has valuable, comprehensive web-publishing capabilities that are in addition to the powerful scripting capabilities used in the process described here. You can look over *Frontier* and its many potential uses at http://www.scripting.com/frontier5/.

As an aside, Apple's own AppleScript could probably substitute for *Frontier*, but so many needed capabilities are readily available in *Frontier* that it looked like the far more robust scripting environment. Out of the box, for example, it has a script that tests whether the "newest" fax file on Machine 1 is still being captured (in which case it leaves it alone), or whether it is ready to be copied over

to Machine 2. Also, *Frontier* easily stores the creation date and time of each new facsimile (as a so-called "persistent value"), so that the program accurately "remembers" which files it has processed versus which ones have come in since *Frontier* last quit. This is valuable when you suffer interference or worse on the network.

To be fair, *Frontier* can't solve absolutely every problem. For example, the version of Global Fax software used is not "scriptable" by either *Frontier* or AppleScript, so a $95 addition called "Player" from Prefab software (http://www.prefab.com/) is needed to work with *Frontier* and make various menu choices to cause the fax software to go through its print cycle.

"Wouldn't it be great if the steady stream of documents you normally process in one way or another somehow magically appeared on a Web site or agency server with no manual processing? You (and others) could view them instantly from your desktop machine..."

Here are all the steps that *Frontier* undertakes automatically once a minute:

-test whether a new fax has arrived on Machine 1 (and copy it over to Machine 2 only after the fax transmission is complete).

-cause the Global Fax Center (or comparable) software to open and print the newly arrived fax (which creates a PDF file in actuality) and save it to a location on disk where it can be forwarded to other machines.

-move the new PDF document to a AppleShare server, or activate *Fetch* and FTP the PDF document to a UNIX Web site.

-remove the extraneous files created on Machine 2 during the production phase, to be ready for the next cycle.

Fetch is a very handy shareware tool, scriptable in either AppleScript or *Frontier*. Essentially, it puts a smooth user interface on the FTP (file transfer protocol) UNIX capability to move files between computers. In this case, it allows a Mac shop to move files into a UNIX environment such as a Web site. As noted, moving files to a Mac server is extremely simple, using AppleShare.

Here's the lowdown on Adobe *Acrobat*. *Acrobat* is a very high-quality set of programs that can do amazing things—but what they boil down to at the basic level is that they can create a very faithful reproduction of almost any document created by other software, and the resulting PDF file can be read on any platform (Mac, Windows, UNIX x-windows and probably others) with a free, universally available "reader." The reader is now often found as a plug-in to popular web browsers—that is, shipped as a part of the browser so that PDF files are as easily viewed and printed as JPEG, GIF and HTML files. If you go to the Internal Revenue Service's web site to obtain tax forms, they are now in PDF format. At the Government Printing Office Web site, enrolled bills being presented to the President for signature are also in PDF format. Thus, you can confidently expect users of the documents you process to be able to

display and print them no matter what platform or word processor they use. Amazingly, PDF files can be smaller than the word processor files they were created from. You can obtain the free Adobe *Acrobat* reader for any platform at the following URL:

http://www.adobe.com/prodindex/acrobat/readstep.html.

There are many refinements possible. To take one example, the Adobe *Acrobat Pro. 3.x* product (which is not free, but in the $300 range) includes a product called *Distiller* that directly converts into PDF the postscript file that most word processors produce as part of printing to a LaserWriter — these are absolutely crystal-clear, high-quality products. Thus, if you are handling large documents you would rather not fax, or if you want beautiful looking "Departmental Instructions", you can process PostScript files direct to PDF. *Frontier* could easily automate this process as needed. Incidentally, *Acrobat's* PDFWriter driver is not free, but is part of the Pro package. The package also includes a product called *Capture* that turns scanned material into PDF (even storing searchable text strings as part of the file), but this is for high-volume conversion, and is paid for on a per-copy basis.

Refinements aside, the arrangements I have described are in place and functioning on a daily basis in a federal agency legislative office. They are easily implemented by a set of three Macs (and could probably be duplicated on PC's) at little cost and with no maintenance overhead. It is probably not coincidence that these arrangements are in place and working just as federal offices everywhere become "clerically challenged," but such are the ways of bureaucracy. Hmmmm. . . ., this is the line I came in on. ∎

Art Explosion 250,000

review by Sylvia Rego

Rating: 4.5 Clicks out of 5

Requirements: Macintosh with System 7.0, but 7.5 is needed for the optional Portfolio™ browser included for the 23 CDs.

Pros: Professional quality and variety of images, range of topics, easy to locate and use. Very helpful manual. From line art through Web graphics and animations.

Cons: Photo section titles in cryptic PC style, not Mac plain English, with a single sample of each category illustrated in the book. The 'crippled' version of Portfolio™ image browser is adequate but limited.

Company: Nova Development (818) 591-9600, www.novadevcorp.com
Street Price: $99.95 ($149.95 for 500,000) Be sure to specify Mac version, not PC. Currently includes Kai's Photo Soap SE.

What's to Know?

NORMALLY, I would wonder what I could find to say about a collection of images. No doubt you'll be hearing what I have learned from the high standards of this set.

Locating Animage

What good are 250,000 images if you still cannot find what you need? Thanks to the obvious care and attention put into the organization of the CDs and into the 1300 page image catalog and User Manual, my only problem was making a decision of which choice to make!

Each CD has a Contents list on its face, showing the categories and range of topics it covers, and their format.

The BOOK is also first-class. Pages are thin but avoid bleed-through of images while still being sturdy enough to easily turn without any crumpling. After the User Manual pages, which are exceptionally helpful, the images are arranged in real-life categories and subheads within each format style. The gray page beginning each section provides fast locating of a group. There is an alphabetical index by image topic which lists all pages for that item.

Images can be inserted directly, or you can use the included Portfolio™ browser. (Or ask me <DataPaul@aol.com> about a shareware substitute that's better!)

What About Form ATS?

Each image shows if it is black and white or color and grayscale. Formats include EPS, 300-DPI TIFF, PICT, 24-bit 72-DPI JPEG photos and backgrounds, 50 animated GIFs and 240-DPI 24-bit color JPEG photos ideal for inkjet printers. Owners of Style Writer or other non-Postscript printers can get a free version of all TIFF files for $4 s&h if desired. The thoughtful manual tells all you need to know—even specific for 14 programs, including ClarisWorks (AppleWorks).

And Professional Fonts

1500 TrueType and PostScript fonts by Agfa—high quality! ∎

From the March 1999 issue of *Get Info*, newsletter of the Macintosh Asheville Computer Society.

CorelDraw 8

Reviewed by Sara Gagan

CorelDraw 8 for Power Macintosh (Installed on a Power Mac 8600/250, 64mb RAM)

CORELDRAW 8 for Power Macintosh is a big, complex program that competes well with Macromedia Freehand 8.0.1 and Adobe Illustrator 8.0. It seems that you can accomplish almost anything with CorelDraw 8 that you can with the other two (acknowledged leaders in the design industry). In fact, it does things that Freehand and Illustrator cannot do. So why am I not leaping to make the switch?

As a professional graphic designer, for years I have been steeped in the ways of Freehand, Illustrator, PhotoShop, and Quark XPress. When you are comfortable with the way something works, there is a natural reluctance to change. When I was first introduced to Quark, for example, I experienced major bouts of resistance marked by endless whining about "Quark quirks." Now, you could not pry it out of my computer. I rarely complete a job without it. It is so much easier and faster just to work the way we are used to, just having to deal with those pesky upgrades now and then. All this leads me to my major problem with CorelDraw 8—it is unfamiliar. From its weird little names for common tools (like the "pick" tool instead of the "selection" tool) to a seemingly excessive number of tool options, it just seems foreign to me. May I quote the manual?

"Some tools in Adobe Illustrator, Macromedia Freehand, and CorelDraw perform the same task but have a different name. Other tools have the same name but may perform the task in a different way." (p. 603.) Because CorelDraw is a well-established Windows application, I wonder if some of the peculiarities I find are the result of a Windows program being bent to fit the Mac environment.

An Innovative Program

Just because something is unfamiliar is no reason to discount its usefulness, however. CorelDraw 8 has a number of strengths from which the other programs could learn. For instance, it is as customizable in appear-

> "It also comes with some impressive libraries: a separate CD includes 1,000 Type 1 and TrueType Fonts, 40,000 clipart images, and 1,000 high-resolution photos. To manage all those fonts (and any others you might have on your computer), CorelDraw 8 provides Font Reserve, a font management application."

ance as you could ever want. You can change the way the default screen looks, how and which tools appear on the toolbars, and where the palettes are placed. You can even save and load customized arrangements for different types of jobs. The user interface consists of toolbars, "dockers" (windows that can either float or remain attached to the workspace borders), and "roll-ups" (floating windows used to assign object properties such as size and position). The Property Bar changes as you switch from tool to tool.

Draw 8 features a very cool Drop Shadow function with which you can interactively create soft, transparent your ship has come in (sic). Create textures, extrusions, transparencies, contours, special lenses, and more to your heart's content. Then, apply filters to pixelate, swirl, emboss, curl, distort, pinch, blur, or sharpen your bitmap image. Draw 8 includes many filters that would be recognized by PhotoShop users.

I absolutely love some of the goodies bundled with CorelDraw 8. Its Commercial Printing Guide is loaded with information useful for the non-professional and professional alike. This is a handy consolidation of information you would otherwise have to glean from numerous sources or learn the expensive way, through trial and error. It also comes with some impressive libraries: a separate CD includes 1,000 Type 1 and TrueType Fonts, 40,000 clipart images, and 1,000 high-resolution photos. To manage all those fonts (and any others you might have on your computer), CorelDraw 8 provides Font Reserve, a font management application. This data-base/browser combination does the job of Suitcase or Masterjuggler, but in my opinion, does it much better. (Word of warning: though you need to have some version of ATM installed, Font Reserve is not compatible with ATM Deluxe. It is recommended that ATM Deluxe be replaced with the standard version, available from Adobe.)

Practical Analysis (or) Exploring the Work Area Without Reading the Manual

As a test of how intuitive the CorelDraw 8 interface is, I decided to "noodle around" prior to doing the

tutorial or even looking at the manual. (Isn't this what most people do until they get frustrated?) Here are my initial impressions:

The Page Size button is a nice feature. It offers every format from "A1" to "German Legal Fanfold" (whatever that is). Of course, you can specify a custom size as well. Ruler units run from points to miles and kilometers. (This is certainly very accommodating, but I wonder where I can find a print shop that will output a 12" x 1 mile page...)

Some features seemed less friendly to me. At first glance, the tool bar looked very foreign. It also took me longer than I would expect to figure out how the program manages layers. When the computer froze upon saving my first masterpiece, I decided it was time for a tutorial. The tutorial itself seemed friendly enough until, again, I tried to save. This happened repeatedly, so I ran Conflict Catcher, but to no avail. The problem became inexplicably intermittent after that, but I never did get through the whole tutorial without crashing. I assume this had something to do with my computer set-up rather than the program. The tutorial itself, I felt, should have been a little more comprehensive.

My practical test of CorelDraw 8 was to try to replicate a real life project done in Freehand. Originally I had created a 4-color (CMYK) logo for a client in PhotoShop, to be saved as a .tiff and imported into Quark for use in a letterhead, business cards, note card, envelopes, etc. However, the client retroactively decided she wanted the entire job done in three Pantone colors. So, I exported the paths from PhotoShop to Illustrator and opened them in Freehand. (I prefer working in Freehand). I filled the paths with the appropriate Pantone colors to complete the logo, then created the stationery pieces, all in Freehand. (I later had to recreate the job in Quark, but that's another story.) I tried to replicate this sequence using CorelDraw 8

instead of Freehand, but didn't get very far. When I attempted to import the Illustrator paths, the (pointer) loaded, but when I clicked to place them, nothing happened. This was probably a result of my lack of experience with the program, but I finally had to give up due to time constraints.

Service Bureaus/Print Shops

Let us assume that I had been successful in completing the job in CorelDraw instead of Freehand. What, then, would have been my output options?

I called several service bureaus and print shops to check the viability of sending CorelDraw 8 files out for pre-press. With one or two exceptions, the results were not encouraging. One local printer suggested that I export any CorelDraw files in EPS format and place them in another program, such as Quark, for final output. He expects slow acceptance of CorelDraw in the professional design community, and does not plan to purchase it any time soon. Another pre-press/imagesetter says he has never had a request to work with CorelDraw for the Mac. Unless it performs particular functions way better than the standards [Freehand and Illustrator], he said, why would anyone switch?

The Outlook

There are reasons why I think CorelDraw 8 will gain ground. For one thing, designers who work in a mixed Windows/Mac environment might have need to exchange files and thus gain exposure in a "back door" sort of way. They might then be drawn to the strengths of CorelDraw as they become familiar with its interface and begin to use it in place of the old standards in some instances. People who are starting out in desktop publishing on the Mac might find it more convenient, and certainly less expensive, to buy CorelDraw—which includes Photo Paint for bitmap editing, Dream 3D for 3D modeling, and a host of util-

ity programs—than to plunge into the expense, and perhaps overkill, of a high-powered setup like PhotoShop and Illustrator or Freehand. CorelDraw's tainted reputation among service bureaus, which stems mainly from PostScript problems in earlier versions, will be hard to eradicate. Presumably these problems have been addressed in the latest version. Also, there are some new pre-press features that will go a long way to head off errors introduced by the user. The "Prepare for Service Bureau" Wizard in CorelDraw 8 guides you through a series of steps to help ensure that the files you send to the service bureau are complete and properly set up for successful printing.

In summary, while I have gained a lot of respect for the capabilities of CorelDraw 8 during this review period, it is highly unlikely that I will make the switch myself. CorelDraw 8's ability to create and edit bitmap images may put it ahead of Illustrator and Freehand in some respects, but those who need a high-end bitmap editor will most likely continue to use PhotoShop, and until DRAW does everything else "way better" than Illustrator and Freehand, my guess is it will face an uphill battle in the professional design community. On the other hand, I can certainly see where CorelDraw 8 for the Mac would be an excellent choice for many entering the design field, depending on their ultimate usage, as well as for the nonprofessional who wants a high-end multifaceted draw, paint, and 3-D program all rolled into one, and who is willing to take the time to learn what this big, complex, and really quite amazing program can do. ∎

DoubleClick

I JUST FINISHED reading your column of February 8 on partitioning and would like to carry this further. My computer stated life as a 486 DX2 66 with 550 mb hard drive. Subsequently it has been upgraded to a 486/586 133 with a 6.6gb hard drive and 40 mb RAM. It also started out on Windows 3.11 and has been upgraded to Windows 98. It runs beautifully and I can now do my work and run my grandchildren's games.The problem is partitioning. It is now partitioned into three equal sections of about 2 gb, but I can only access two of them. The program for formating the new hard disk (Western Digital EZ Drive 9.09) stipulates that Windows 3.11 cannot handle partitions bigger than 2.2 gb while Win 98 can handle (in this case) the full 6.6 gb. Because it is an upgrade, Windows 98 requires that I install Windows 3.11 before it will load (I tried just installing Windows 98, but no go). This requires that I partition the disk into three 2.2 gb sections. This would be no problem except that the BIOS will only allow five drives (telling one of them to be B drive does not work), So in Win 3.11 I can have three partitions and no CD drive or two partitions and my CD.

If I could format the hard drive and set go immediately into Win 98 I could have all my 6.6 GB on C. Is there any way to go directly into Win 98 so I can have just one partition? If not, is there some way I can have a drives C, D, & E plus F for my CD? My preference would be to have three separate partitions, then I could have one for DOS. My computer used to run several DOS based programs very well, but under Win 98 the simulated DOS cannot provide sufficient memory (it

tells me). Any help or suggestions gracefully accepted and do keep up the good work.

The Journal has the only serious computer page in the community.
Jim Wood
5107 Talbot Place
Alexandria, VA 22304-2705
tel. 703 370-5977

Jim: Thanks for the complements, Dave and I are blushing. You know Dave, we find out a lot of information from the Knowledge Bases and Support options on manufacturer*s web sites. As much as people like to bash Microsoft, I find the info contained in their support sections to be pretty good and thorough. I thought I would take this opportunity to answer some questions using the support options from Microsoft for Jim's question here. I've included the text I used to search so you can see the results. This may help our readers when they get some frustating problems and can't wait for us to answer their questions in the paper.

You have a couple of choices here. If you are still on Windows 98, you can try converting your existing partitions to the new FAT32. FAT32 is a system that allows more hard drive space to be used in a single partition.

Jim's first question is about partitioning and Windows 98 versus 3.11. I went to http:// support.microsoft.com, clicked on Search Support. My search is about Windows 98 (just pull down the menu there and select Windows 98). I want to search by Keywords (the default), then I type in "partitioning" (without the quotes.) One of the nice things about Microsoft's page is that it will keep the last 10 searches you have

done at their site available to you. They use cookies to do this, but don't worry, they are just tracking what you've searched for in the past. Click Go and up pop some hits. The second hit looks interesting: "MS-DOS Partitioning Summary." I read about the different DOS versions (and even Windows 95 and Windows 98) and how they partition hard drives. At the top in the summary of this article it has a link to another article that tells me the order in which driver letters are assigned. This is relevant to Jim's question too. I click the Back button on my browser to get the list of hits again.

Number 5 is a description of default cluster sizes for FAT32. I'll check it out. Well it doesn't really tell me anything, but it does mention another article about the description of the FAT32 system. I'm intrigued, so I click on that one.

It tells me all about FAT32 file systems, which is kind of interesting. You can learn that the FAT32 system allows large partitions which is exactly what Jim's looking for. Even more interesting is a section that mentions how to convert my existing partitions to FAT32 under Windows 98.

What the article says to do is:

1. Click Start, point to Programs, point to Accessories, point to System Tools, and then click Drive Converter (FAT32).
2. Click Next.
3. Click the drive you want to convert to the FAT32 file system, and then click Next.
4. Follow the instructions on the screen.

Please note, that I HAVE NEVER TRIED THIS! You MUST have a good backup that you can restore from in case of disaster.

Another option (which you wouldn't find on Microsoft's home page, but which I happen to know about is Partition Magic software from

Power Quest. We use that software here in our office and like it. We haven't had any problems with it.

Back to Jim's second problem of not having enough memory for a DOS program under Windows 98. I go back to http://support.microsoft.com and I search now for "increase memory for dos programs" (without the quotes). The third hit is titled: How to Increase Conventional Memory for MS-DOS Based Programs. That looks good.

Jim's final question is about installing Windows 98 with the upgrade copy, the short answer is you can't. Since the upgrade costs less than the full copy, they want to make sure you have the older copy installed and they will "upgrade" it for you.

It gives me lots of info on this subject (too much to reprint here.)

Here is a listing of the URLs that may help Jim and others.

Power Quest's Partition Magic
http://www.powerquest.com/product/pm/PMdescription.html

For more info on FAT32, check out:
http://support.microsoft.com/support/kb/articles/Q154/9/97.asp

There is a good, albeit technical, article on the various forms of memory at: http://support.microsoft.com/support/kb/articles/Q37/2/42.asp

To increase the amount of DOS memory available
http://support.microsoft.com/support/kb/articles/Q134/3/99.asp

Description of Default Cluster Sizes for FAT32 File System
http://support.microsoft.com/support/kb/articles/q192/3/22.asp

MS-DOS Partitioning Sumary
http://support.microsoft.com/support/kb/articles/q69/9/12.asp

Info on how MS-DOS and Windows 95 assign drive letters:
http://support.microsoft.com/support/kb/articles/Q51/9/78.asp

Of course, by giving away our Internet Searching Secrets, there won*t

be much need for computer columnists huh Dave?

DAVE

SHHHHH! It's our secret, Derek.... Well OK, but only for this week's column.

As long as we're talking about support, let's head our Mac users to apple.com for Apple Computer's online help. Goto apple.com/support to start. Selections include the new Blue and White G3s, Powerbooks, iMacs, Older Macs, Mac OS and Server and Applications. From any of these choices, you can head to the 14,000 article Technical Information Library. Like Microsoft's technical information files on the web, this is a great place to get help or tips about anything Apple. If you scroll down to the bottom of the page, there's a search window you can use as well. Most of the time, I head in that direction since it can save several mouseclicks getting through layers of menu selections.

Derek handled Jim's question about Windows Partitions and FAT 32, so we'll take a simliar look at Apple's answer to getting more out of hard disk partitions. On this side of the PC world, it's called HFS+. So I'll search for that and see what we can come up with.

One of the selections tells me HFS+ is called the "Extended File Format" and was available starting with OS 8.1 (we're up to 8.5 and on the verge of 8.6). It will let me "dramatically increase the number and size of files" stored on my system. But (except as noted below) you have to do a backup and then reformat (using Apple's Drive Setup Program) to get the benefits of HFS+.

Heading over to the Mac OS Technical Information Library at http://til.info.apple.com, I'll do another search on HFS+ to find that there are some 76 articles just on this item alone. You could also search on "Extended File Format as an alternative but as I discovered, nothing came

back! So HFS+ is what you've got.

Going beyond Apple's site, I'll use the wonderful Sherlock Search Engine that comes with OS 8.5. Sherlock can search your choice of Internet sites simultaneously, including the Apple Technical Information Library!. The rub with doing it this way is that "HFS" can stand for lots of things (like Health and Family Services) so you'll have to weed through a few choices to find what you're looking for.

Here are some articles I found that are relevant to our search:

HFS+ Survival Guide
http://macworld.zdnet.com/pages/april.98/Column.4241.html

A review of HFS+
http://www.chron.com/content/chronicle/atchron/98/02/15/drmac.html

Upgrade your partitions from HFS to HFS+ without reformatting using
PlusMaker
http://www.Alsoft.com/

Finally, another great source of information on drive partitioning or anything computer-related is your local User Group. Whether PC or Mac, these folks are a tremendous resource of information and help. Most importantly, there are members who have probably done what you need to do and faced similar problems, so they know how to deal with them. The price for membership is small compared with the return.

The biggest groups in the DC area are: The Capitol PC Users Group at http://cpcug.org/ and (my favorite!) Washington Apple Pi at http://www.wap.org. By the way, their latest CD - Pi Fillings V. 4.5 is out with tons of Mac OS upgrades, utilities and more - all for just $10.00 plus postage. Info is on the web site or email to office@wap.org. Check out their education disk too. ■

More DoubleClick

DEAR DOUBLECLICK, My mom and dad wouldn't write this, so I'm going to write it. I'll make it brief: What is your idea of a dream system? We're looking for a new computer, and it has to be able to do everything: high-performance games, Web design, word processing, financial records, DVD movies and games, great sound. I would say try to keep it under $10,000 but my parents would say it should be under $2,500. Thanks for your time - Danny

DAVE
Woah! Derek and I have been wondering when we'd get a question like this. I know Derek still has that dream Radio Shack TRS-80 system he put together a few years ago. And I still have (really) that dream Apple /

DoubleClick is reprinted by permission of the Journal Newspapers Dave Ottalini is on the Board of Directors of Washington Apple Pi, the Apple/Mac user group based in Rockville, Md.

Derek Rowan is president of HLP Asociates Inc. (www.hlp.net), a full-service computer network and Internet firm serving businesses, headquartered in Falls Church, Va., and with offices in Washington, Baltimore and New York City.

Dave and Derek can be reached by e-mail at doubleclick@jrnl.com; by snail mail in care of The Journal, 6408 Edsall Road, Alexandria, Va. 22312; or by fax at (703)-846-8366. While all questions and comments are welcome, we cannot promise individual responses.

// system with 5 MB Profile. Dreams are wonderful but usually only last so long as the next version of CPU or OS does. Then you get to start all over again.

Luckily, Danny, today's Macs and PCs are not only fast and powerful, but can be updated and upgraded in so many ways that it would take a book to discuss everything. And remember you're not just talking about the "computer" itself but the peripherals you will also need to complete your system. That includes a monitor, scanner and printer, for example and could also include modem, tape backup, joystick, digital camera, etc.

Given the money you're talking about, let me suggest you hold on a tad and wait for the Revision D iMac that is expected out this summer. The word is, these all-in-one units will have a 300 mhz or faster processor, DVD, 16" monitor, 56k modem, Rage Pro graphics, at least a 6 GB hard drive and 32 mbs of memory (which is upgradable). There's also comment out there that Apple will bring back the so-called "mezzanine" slot that will let you add additional functionality including even faster graphics cards, etc. (these were removed from the Revision C units). This will only set you back about $1299.00 - leaving you plenty to buy a scanner and photo-quality printer. IF you play your cards right, some vendors even bundle one of these peripherals with the computer. Of course you'll get your choice of 5 yummy colors. The iMacs offer great sound but you cán improve that with color-matched speakers from a number of vendors.

Given the popularity of the iMac, many more games are being produced for the computer—most of the top-rated games are already available (wait till you see the new one from Lucas Arts based on Chapter 1 of the Star Wars saga). And with software from Connectix, you can play almost any Playstation game. Emulation software is also available to run Windows on your Mac - and thus, all the games on that side of the PC puddle. With the USB port, you can connect a growing list of peripherals (like that scanner and printer) including a growing number of joysticks. You'll want to buy a disk drive like the Imation Superdrive or Zip Drive.

IF you can't wait, go with a current iMac (the only thing it doesn't offer is a DVD drive at this point) or the Blue and White G3 and a good 15-17" monitor but you'll end up paying somewhat more for it than the iMac. You can get a model built to order direct from Apple with a DVD drive if that's what you need. Any of these Macs are wonderful for doing web design (like FrontPage, GoLive and HomePage), word processing (Try Nissus Writer, Appleworks or Word from the Office 98 suite). Quicken will take care of your financial needs. Apple bundles a vast amount of software with each iMac which should take care of just about everything you need to do.

My only other suggestion would be to upgrade your memory to at least 64 or even 128K if you can afford it - you'll be happy you did.

OK Derek - your turn to "Dreaaaaam, Dream, Dream"...

Derek: Hmmm... You laugh, but I still do have a TRS Model 100 "laptop" and a Sinclair ZX-81 1K computer assembled in the early 80s.

Well, I'm going to be a little cynical. (Not really, it's just my job to give both sides of a computer story...) Instead of spending all of that money on a new PC, how about spending $599 on one of the new E-Machines. The low cost PCs sweeping the nation. In only 4 months of sales, E-Machines

have surpassed the market share of Apple computer and are the 4th largest manufacturer of personal computers in the marketplace at only a little over 1% behind IBM. They are the fastest growing personal computer maker in history.

For $599 you get a 333MHz (Celeron based, but don't worry it is the new Intel Celerons that are very fast), 32MB of RAM (upgradeable), 4GB Hard Drive, DVD Drive, ATI Rage Pro Turbo Graphics card, Crystal 3D audio card, keyboard, mouse, Windows 98, Microsoft Works, Floppy, and a v.90 56K modem. Just add a monitor and you're ready to rock. Take the left over $9,200 and invest it. With the interest or dividends, you can buy a new E-machine every year. You can't get that kind of computing upgradeability anywhere. This machine will really do everything you want and especially for Internet surfing and such it will be great (because you have a fast modem.) Check 'em out at http://www.e4me.com

If you absolutely have to have the latest and greatest, consider a Pentium III 500MHz. Get a 18GB Hard Drive, CD Writer, DVD Drive, (although I don't know anyone who wants to watch a movie on their 15" or 17" monitor at their computer desk....), ZIP Drive, Tektronix Phaser Dye Sublimation color printer, 128MB of RAM minimum, Ethernet Adapter (for your ADSL 1.6Mbps Internet connection), 17" Flat Screen monitor (which is really the same as 19" regular monitor), 3D Full Duplex Sound Card, Creative Labs 16MB Banshee Video Adapter. I would also consider a second hard drive that is in a removable cage so that you can have a hard drive for games, and one for other stuff. (Games tend to blow up your machine if you use enough of them.) Cost? Computer is about $4,000, printer another $3,000. Money to spare! Of course, you can shave some money off by going with a regular monitor and not having removeable hard drives. That would

bring you more in line with your $2,500. If anyone wants a system like this, give me a call!!! :-)

MORE COMMENTS FROM OUR READERS:
Guys,

Thanks for your advice, and to Harley for his comments on the problem with my system hanging up when shutting down. Shortly after I E-mailed you the problem stopped happening. I could not figure out what was different until I read Harley's comment. I do have Norton Utilities 3.0 running in the background. Sometime recently I went to the web to check for an update for NU and downloaded one. I do not recall the timing of the download and when I stopped hanging up, but it sure makes sense that NU was causing the problem.

Thanks again.
Joe Stehling
Bowie

David & Derek,
Thank you for the information in

your column of March 29 answering my earlier questions on partitioning. I thought I would bring you up to date on what happened. I now have three fully functional partitions on my hard drive of 2.2 GB each. However, I don't know how. On Sunday I had drives A through E. After your column, I converted my two accessible drives to FAT32.. While checking MSD I noticed I now had a phantom drive F and a limit of drives through H! I went back and ran FDISK which advised me that Win98 had a large disk management function. I decided not to go for one big disk, as it advised some programs would find this non-accessible. With FDISK I resurrected the unnamed partition and named it E. I tried to format it in FAT32 but the program said it could not access it. However, this morning it was listed as already having FAT32. Maybe FAT32 is magic. MSD now advised my limit on drives is through I. Now I'll try your information on increasing memory for DOS programs. Keep up the good work!
Jim Wood ■

3 Macs & a Printer
(a guide to Macintosh networking)

by Matthew Glidden
<manos@u.washington.edu>
<http://weber.u.washington.edu/~manos/network/index.html>

THREE MACS & a Printer is a wonderful site that explains Macintosh networking in plain English, intended for novice and experienced Mac user alike. It focuses on small networks (from two to ten Macs or so), with instructions for setting everything up and making it work together. Where appropriate, pictures and screenshots accompany the instructions to ease in comprehension. And hey, it's free! (My favorite price.)

For the convenience of people who don't want to read all of the site on line, a downloadable version is available. This downloadable file includes every page and graphic on the site. For ease of use the freeware Shrinkwrap is used to create a disk image of the web site, stuff it, and make it self-extracting.

For readers that just bought a new Mac and are wondering how to connect it to their old one here is a small

section of this amazing site: <http://weber.u.washington.edu/~manos/network/ethernet/>

Setting up a Crossover Cable Ethernet Network

Preface

The least expensive of the Ethernet options, crossover cables are a specific type of twisted-pair cable that has the internal send and receive wires swapped. This cable can network two (and only two) systems together.

Caution (or "Why won't my crossover network work?")

Most of the new Macs out there come with some type of Ethernet built-in. Some (like my 8500) come with a port on the back. Others (like some clone models), come with an installed Ethernet card. Just because you have two Macs with built-in Ethernet doesn't mean you can use a crossover cable to network them. Some Macs can't use Ethernet unless there's already another device available to communicate with (such as a hub). The reason why relates to the process Macs go through during startup:

1.   Power   on
2. Look for active Ethernet devices
3. If found, go active. If not found, stay inactive.

If your two Macs are both like this, a crossover network probably won't work for you, since the Macs can never go active without the other already active. It's kind of a chicken-and-egg problem.

So how do I know if mine will work?

If one of your Macs has an Ethernet device that automatically goes active (there are adapters and transceivers that do so), then you'll be okay to use a crossover cable, since the second Mac will also go active. If you set everything up and go through the software steps on the next page but it doesn't work, you probably won't be

able to use a crossover cable only. If you really, really think the setup you have should work, but isn't, make sure to send mail and I'll see what I can do for you.

1) Get a crossover cable

You can find a crossover cable at most cable stores; I picked one up recently from my local CompUSA. For people interested in building a crossover wire for yourself, here are the exact wire connections:

Pins: 1 to 3, 2 to 6, 3 to 1, 4 to 4, 5 to 5, 6 to 2, 7 to 7, 8 to 8

If you're looking for specific information on building your cable, check out the how to build a crossover cable page (not mine, but very well done).

2) Plug each end of the cable into the Macs' Ethernet ports

Plug each end of the cable into the Macs' Ethernet ports. If your Mac has built-in Ethernet, the port will look something like this. If you're using an Ethernet card or adapter, the port will look very similar

Pin #   Signal name

1   TD+
2   TD-
3   RD+
6   RD-

              TD+   1
              TD-   2
              RD+   3
              RD-   6
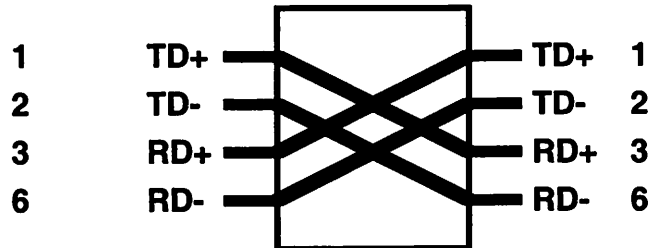
(slightly larger than a phone plug)

3) Install the Ethernet drivers on each system

Unlike LocalTalk networks, Ethernet networks require some additional software beyond the standard extensions included with the MacOS. If your Mac came with a built-in Ethernet port, you probably only need the Ethernet (Built-in) or Apple Built-

> " Just because you have two Macs with built-in Ethernet doesn't mean you can use a crossover cable to network them."

in Ethernet extension in addition to the normal networking software. Check out the documentation that came with your system; it should include instructions for using the built-in port.

If you added an Ethernet card to your Mac after buying it, it probably came with a disk or two. Make sure to read the card's instructions and install the software as directed; without the included software, it's unlikely your card will function properly.

4) Go through the Installing the Software page, then start up your Macs

Since crossover networks need to be started up in a certain way, you should come back here once you're done with the software installation and follow the steps below.
1. Start up the first Mac and wait for it to get to the desktop
2. Start up the second Mac and wait for it to get to the desktop
3. Open the AppleTalk control panel on the second Mac and select Ethernet
4. Restart the first Mac and wait for it to get to the desktop
5. Open its AppleTalk control panel and select Ethernet

You're done! ■

From the March 1999 *MacWest Memo*, newsletter of the MacWest Computer Society of Vancouver, British Columbia.

Professional Tax Preparation Software for the Apple II

by Brian Mason

I EXPECT THAT by now most of you have already turned in your tax forms. But if you haven't or you need to start thinking about next year, I would like to recommend a tax preparation software package for your consideration. I have been using this same program since at least 1987, though they have been in business since 1979. This software is called *Tax Preparer*, and is published by HowardSoft.

Tax Preparer is not cheap. It cost $99 this year for the regular update. However, as Ric Edelman, the financial advisor, author of "The Truth About Money" and host of the "Your Money Matters" radio show on WMAL said in another context, "You get what you pay for. Which are you going to put more confidence in, a tax package for which you paid $25 or a tax preparation service for which you paid a couple hundred dollars."

Basically the program runs on any IBM compatible or Apple compatible machine, even those with 40 character-wide screens, 5.25" disk drives and as little as 64K of memory. So this would include the Franklin 1000 and 2000 series of computers. It will run on a Macintosh only if you emulate the IBM or the Apple computers either through hardware or software.

For the Apple II, it comes on a 3.5" disk or on 5.25" disks with full features if you have a hard disk or 256K of memory You can also get it with limited features if you simply have a 5.25" disk. The software supports 41 different IRS forms including Schedules A, B, C, D, E, EIC, F, H, J, R, and SE. (See accompanying screen shot.) There are also 44 different data entry worksheets to provide documented support for corresponding lines on the forms including such things as Mortgage Interest, Vehicle Expense, Personal Casualty and Theft, and Estates and Trusts, just to mention four. Finally, there are 26 different prominent IRS worksheets built into the calculations that are not part of the printed return such as capital gain worksheets, Roth IRA contribution worksheet, and Child's Investment Income worksheet, just to name three. While the 3.5" version includes all IRS forms, the limited version supports 21. For those of you who prepare other people's tax returns, you can create up to 15 tax returns on each of 99 separate "tax volumes".

The manual consists of two sections, one that stays much the same from year-to-year, and one that you replace every year. The later is the Tax Forms Guide, which covers the current version of all the IRS forms and how you are expected to complete them. The former deals with the *Tax Preparer* program itself, which hasn't changed much if at all over the years. It contains an Introduction, which covers initial installation instructions and the installation instructions for prior-year users, a Tutorial Guide, which helps cover some of the concepts of operation of the software, and an Operating Guide, which give more detailed instructions about how to work your way through the program, nagivating through the various screens and options, and printing your tax returns. The instructions for the Apple version of the software are distinguished from the instructions for the IBM version by shading of the text, allowing you to just skip over the portions that do not pertain to your situation.

The Tax Forms Guide this year was 10 pages longer than last year, making it 310 pages long. Every year the Tax Forms Guide starts with a highlights of the changes over the previous year. This section was two pages longer this year. This section gives you an overview of what to look out for as you prepare your return, areas where you can't rely on what you did last year but must make decisions about what to do this year.

The Guide, as you can guess by its length, is very comprehensive. Though Howardsoft never claims to be able to replace your accountant or lawyer, there are often situations you run across where the Guide will make it clear what the implications might be of taking one course of action rather than another. An example of how Howardsoft incorporates IRS rules into the software is indicated by this example paragraph from the Guide. Here the Guide is explaining how to fill out line 5 of the 1099-DIV Worksheet **5 Investment expenses.** This is the part of box 1 [on the IRS Form 1099-DIV] that you did not actually receive but was used by the payer to cover investment expenses. You must pay tax on the full amount in box 1. The investment expense is deducted only as an itemized expense in line 22 of Schedule A, which the software ensures automatically.

I received the Tax Forms Guide the first part of March with a revision of the software. The flyer accompanying the Guide stated,

We appreciate your patience with our delay in getting this manual to you. There were so many changes this year that we had to delay our completion of the manual in order to get the software to you in a timely manner.... We hope that you can appreciate the demands on our time in automating the three new forms we added, the numerous new calculations for new credits, new types of IRAs, new reporting of

capital gain distributions, etc.

The late revision to the software was necessary because of the complicated way the tax on IRA's is calculated. The previous version of this year's update allowed you to start working on your return and included instructions on how to work around the problem that was fixed in the revision received in March.

Movement through the program is very simple since the program is text-based. Rather than using your mouse to point and click, you simply press the appropriate navigation key. Escape backs you up through the menus, the arrow keys and/or the number keys move you into the menus. If you forget what key to press, press the question mark, and a simple help line is displayed at the bottom of the screen. If you need to add up some figures on a line, enter the '+' key and the first number. This causes the cursor to remain on the same line. Then press the operation you want to perform on the first number, '+', '-', '*', or '/' and then enter the second number, and the calculation is done for you.

There are basically two ways to approach the IRS forms you need to fill out in the package. Either pick the form you want to fill out and go directly to that form, or you can use the 1040 Road Map. When you choose the later method, you are first presented with the 1040 form. Some of the lines have blocks at the end of the text. These lines are automatically completed by the program and are automatically skipped as you move the cursor down the page. To the far right of some of the lines are 'w's' and 'r's'. The 'w' indicates that there is a worksheet built into the software that you should complete to arrive at the correct dollar amount for the indicated line. Pressing the 'i' key (for itemize) takes you to that worksheet. The 'r' indicates that an IRS form supports the line. Again, you press the 'i' key to go to that form. Once a form or a worksheet has been completed, the 'r' and 'w' change to 'i's' so you know
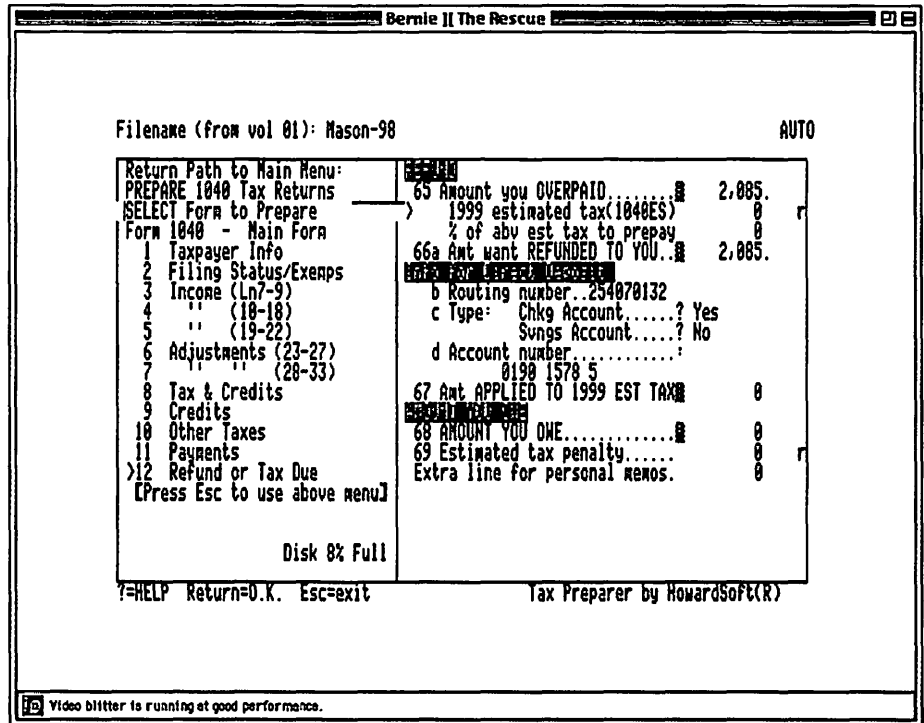
Figure 1. Typical data input screen. Data is entered into the form on the right. Pressing the Escape key activates the navigation area on the left. The 'r' on the right side indicates that there is an IRS form available which can be used to generate the dollar amount to be entered on that line.

you have decided that this line pertains to your situation, and you have supported the dollar figure that is automatically transferred from the form or worksheet to the line on the originating form.

When it comes time to print out your return, you have lots of choices. The IRS has been very particular in the past about what they receive. You must either submit their official forms, or forms that look very much like their forms. In the days of dot-matrix printers, Howardsoft was one of the companies that constantly worked with the IRS to get them to accept computer-printed forms. But they have always also offered the opportunity to use transparent overlay forms that you can put on a photocopier together with your printed output behind the overlay to make an acceptable photocopy reproduction of a completed form, which, once signed, the IRS would accept. Finally, Howardsoft also allows you to use laser printers with

special tax fonts which the IRS will accept. I have never tried the copy machine or laser printer options. I have always just used my standard, every-day ImageWriter II. When you use this option, all of the forms are printed in a fashion acceptable to the IRS, all in the correct order for submission, except for the 1040 itself, which you have to fill out with good old pen and ink based on the facsimile 1040 printed by the program.

Installation on an Apple IIgs is simple. If you have a 3.5" disk drive, make a copy of the 3.5" disk that comes from Howardsoft, put the copy in your disk drive, double click on the TPSTART.SYSTEM icon and begin. If you have a hard drive, just create a folder to hold the files, copy all of the files from the 3.5" floppy over to the folder except for the ProDOS application and the System folder, double click on the TPSTART.SYSTEM icon and begin.

In subsequent years, when you receive your update disk, view the files

in order by date both in the folder on the hard drive and on the floppy disk. Based on the modification date, select the new files from the floppy and drag them over to the folder on the hard drive.

The software includes a translation utility which takes the information from the previous year's return and completes a great deal of the information required for the new year. This includes not only your personal information, but also information about your income and depreciable property. It advances your age and the age of your property by one year, etc., giving you a starting point for the completion of this year's return. The program also automatically figures the effect on this year's taxes of the previous year's activity. Just as one example, if you are taking deductions for depreciation of business assets, the program will figure out if there is any life left in the asset, and if there is, calculate the depreciation that can be taken this year using the same criteria as the previous year and any adjustments that might be required as the result in a change in the tax law.

The challenge I took upon myself this year was to move the software off of my Apple IIgs, even though I didn't really need to, and put it on my PowerMac running *Bernie II the Rescue*, the Apple IIgs emulator from F.E. Systems. I expected to get, and did indeed get, a tremendous improvement in the speed with which the involved calculations are computed. Every time you complete a line, the form is recalculated, and any lines which result from automatic calculations are completed. This process never took an unreasonable length of time, but now that I am emulating the IIgs on my Mac, the speed is greatly improved.

To print using *Bernie II The Rescue*, you need to go into Change Program Settings, Facsimile Printouts, and get rid of the initial setup characters and change the no. of line feeds needed per line to 0.

I have never used another tax
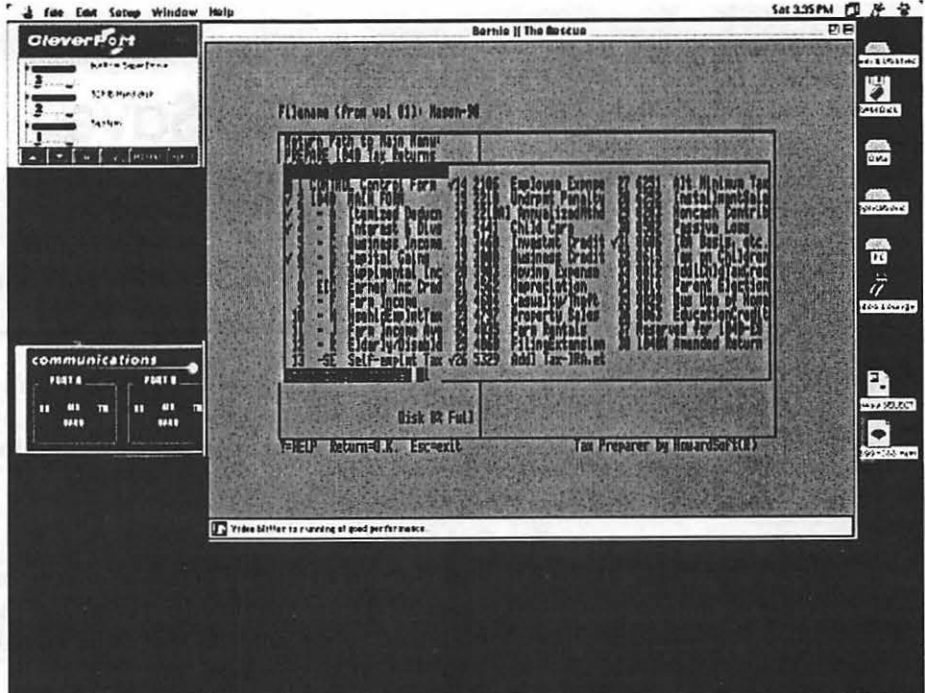
Figure 2. Screen shot of Tax Preparer *running within* Bernie II the Rescue *on my PowerMac. This shows the forms available to use within the program. The ones checked are the ones that currently have had data input.*

preparation package, so I do not know how Howardsoft compares with, say, *MacInTax*. I have often wondered if you fed the same data to different tax preparation packages, if there would be significant differences among them. I do trust Howardsoft, however. This is because of the completeness of the package, the documentation that not only comes with the package, but that comes in the mail during the year, and the comprehensive way the company services its professional tax preparing customers.

Howardsoft now has a very helpful Internet site located at www.howardsoft.com. Here you will not only find information about the company, but also helpful hints on using the software, additional information about tax regulations, and links to the IRS and other sites pertaining to tax preparation. You can also receive customer support via email at the site. There are also Customer Service Memos which explain in depth certain difficult tax issues such as Roth IRAs, and how to use the software to

properly handle these issues.

I will continue to use this excellent tax preparation software package as long as the company continues to make it. And now that I can emulate the Apple II on my PowerMac, I would say there is an even longer life expectancy for the software. ⬤

Product Information

Name of Program: *Tax Preparer*
Name and address of Publisher:
Howardsoft, 7852 Ivanhoe Avenue, La Jolla, CA 92037 Phone: 619 454-0121
E-Mail: www.howardsoft.com
Minimum Platform: IBM PC or Apple II with 64K RAM and 5.25" disk drive.
Recommended Platform: IBM PC or Apple II with 256K RAM or hard drive and 3.25" disk drive
Price, *Tax Preparer*, **regular edition, first time purchasers:** $295
Annual update cost, regular edition: $99 plus $9 minimum shipping. Other products also available at additional cost.

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A Web Site that Could Save Your Life: www.alldata.com

by Paul Gerstenbluth (ArieFound@aol.com)

TO KILL THE sound, I put the dead plug jack into the audio sound connector of my Mac Performa 6200 CD. It was no good waking people up at 3:30 A.M. I than turned on my Mac and four minutes later, I was on the Web.

You Got Troubles

My car was acting obstinate and I just received a recall notice from Ford on my Mercury Sable. Also, I just received a detailed e-mail from my friend on the Ford and Mercury Recalls. The 3.3 million cars recalled were 1986-1995 model-year Taurus and Sable vehicles and 1988-1994 Continentals.

I was told that car owners were asked to bring their vehicles to dealers for installation of new reinforcement plates, attaching bolts and plate nuts. The repairs will be made for FREE.

I wondered if there were any more outstanding recall warrants on my car.

Search Engines

I typed in "Recall Cars auto Mercury Sable," using AltaVista.com and Jeves.com for my search engines. I was directed to Popular Mechanics' Alldata.com web site. Double clicking on recall cars, I moved to 1992 and Mercury Sable.

The splash screen: Automotive Recalls and Technical Service Bulletins for 1992 Mercury Sable V6 provided by Alldata.com appeared. I moved down the long list from Safety Recalls, Emission Recalls, General Recalls to Service Bulletins. The list was long with about one page per year of my car's age.

In rapid fire order, I cashed in my Bank Certificate of Deposit and did some serious car looking. I quickly bought a new car.

Tell a Friend

I mentioned the Alldata.com web site to my buddy, Chet. He checked out his family's cars. In turn, Chet used the recall cars' print-outs as leverage to get reimbursed on previous out-of-pocket repairs that were related to the car recalls notices. Also, he was able to receive discounts on the recall work mentioned in the Service Bulletins from the car dealerships.

My buddy, Chet told me Alldata.com web site saved him money and kept his family alive. He avoided car accidents that could have been the results of recalls that were never received. Undelivered automobile recalls that were pigeon-hold in the Dead Letter Box. ■

Paul Gerstenbluth is a Mac Computer consultant and management analyst in Rhode Island.

DC Web Women Launched to Provide Resources for Women Online

THE THRIVING Internet community previously known as DC Webgrrls announces today the launch of a new women's Internet group, DC Web Women. The group, formerly affiliated with Webgrrls International, created the new organization to better serve the needs of its growing local membership through a non-profit structure.

Since 1996, this community of women in new media has grown to nearly 1,500 members. "As more and more professional women take their careers to the Internet, DC Web Women will be their voice, their source for information and career growth, and their vehicle for service in the DC community," says Jeanne Marshall, president of DC Web Women.

In addition to continuing the highly popular electronic mail list, DC Web Women will offer member services such as low cost, hands-on workshops, networking events, and monthly meetings about Web-related topics such as web design usability issues and high-tech certifications.

The Outreach program will continue to create partnerships in the community and seek to involve young women in the technological revolution. One of its biggest events, Take Our Daughters to the Net Day, held in conjunction with the Ms. Foundation's Take Our Daughters to Work Day, provides an opportunity for young women to learn cyber-safety

and build their first web page. The third annual Take Our Daughters to the Net Day will be held on April 21, 1999, at several locations around the region. Says Outreach Direction Sonia Zamborsky, "We look forward to continuing our tradition of helping girls and women get involved with the Internet."

"Membership is free, and I strongly encourage interested women to visit our web site at http://www.dcwebwomen.org and become involved in our community," says Marshall. For more information about DC Web Women, contact Jeanne Marshall, President at leader@dcwebwomen.org or Alycia Eck, Public Relations Director, at press@dcwebwomen.org.

DC Web Women
h t t p : / /
www.dcwebwomen.org

Webgrrls International
http://www.webgrrls.com

Ms. Foundation
h t t p : / /
www.ms.foundation.org ∎

Delmarva Slice

We welcome this new Slice and suggest that people in that area contact Shelly Wetzel <sawetzel@ssu.edu> to find out more about the group.

Washington Apple Pi, Ltd. 12022 Parklawn Drive, Rockville, MD 20852

Membership Application
Please print or type:

Name_____ Phone # (H) _____ Phone # (W) _____

Company_____ Address _____

Occupation _____ _____

Please answer a few questions for us regarding your computer use. Check the computers/equipment that you use on a regular basis.

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☐ Apple IIe, IIc
☐ Apple IIc+
☐ Apple II GS
☐ Laser 128
☐ Franklin
☐ Apple III (SARA)
☐ Mac Plus, 512e
☐ Mac SE
☐ Mac SE30, Mac IIx
☐ Mac Portable
☐ Mac LC (series)
☐ Mac Classic (series)
☐ Other _____

☐ LISA
☐ Mac II
☐ Mac IIci, cx
☐ Mac IIsi
☐ Mac IIfx
☐ Mac VX
☐ Mac PowerBook
☐ Mac Duo
☐ Quadra (all)
☐ Centris (all)
☐ PowerMac
☐ Newton
☐ Performa (all)

WAP has many Special Interest Groups (SIGs) and activities. Fill in letter next to area of interest. **J=Join Group, V=Volunteer**

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Apple II GS SIG____   HyperTalk SIG____
Apple III SIG____   Mac Programmers
Art SIG____   SIG____
CAD SIG____
Database SIG____   NOVA Educators
Disabled SIG____   Mac/Apple
Disk Library____   Users SIG____
EdSIG (education)____   QuickTime SIG____
Excel SIG____   Stock SIG____
Game SIG____   Telecommunications
                            SIG (TCS)____
☐ *I can serve as a*   Women's SIG____
Hotline contact for _____

Enclose check or money order payable to Washington Apple Pi, Ltd.

☐ Basic Membership—1 year $49
☐ 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 $_____

Indicate desired New Member kit (1 only)
☐ Apple II
☐ Apple II GS
☐ Apple III
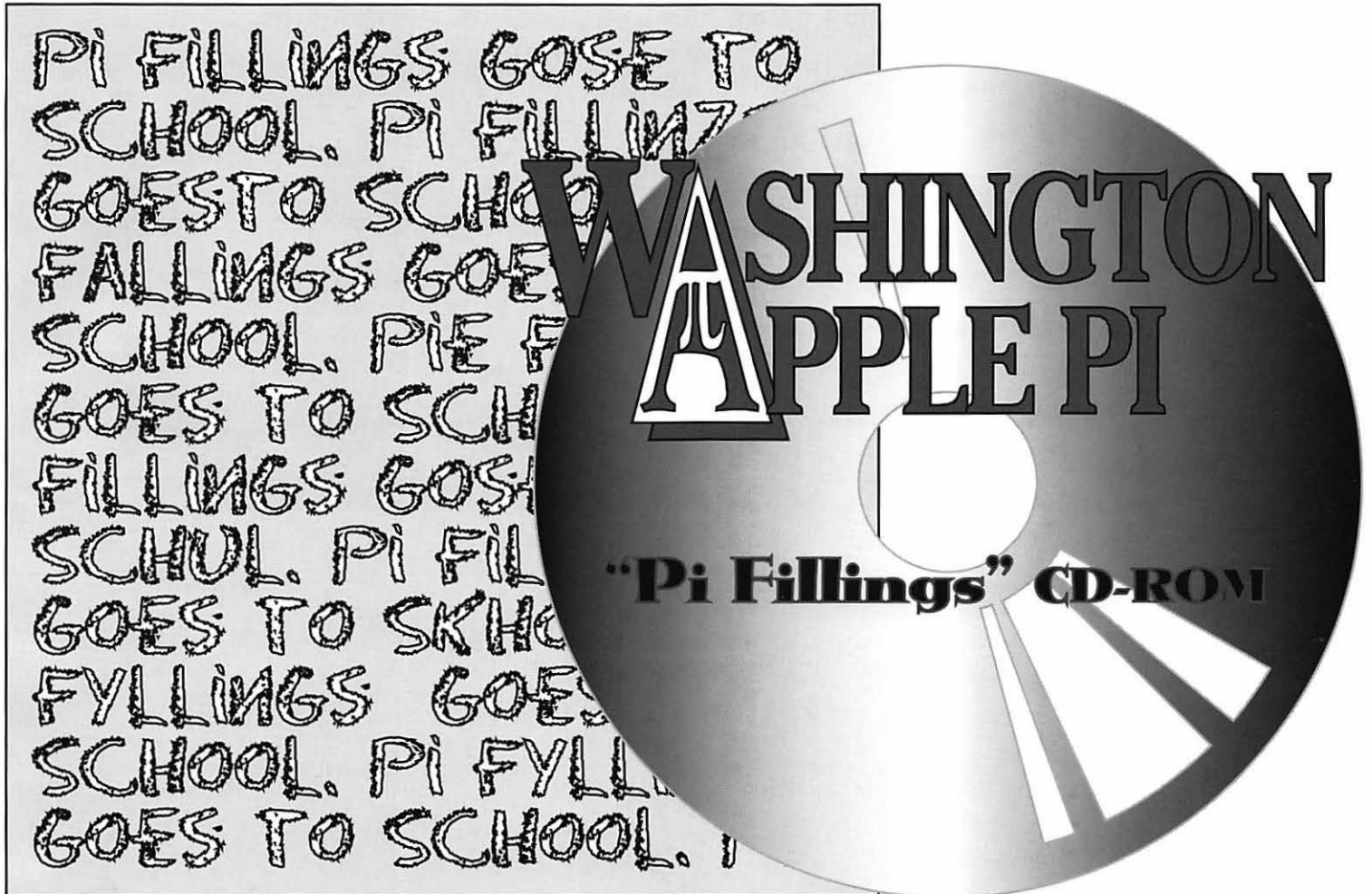☐ Mac 400k
☐ Mac 800 k
☐ Mac 1.44 k

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.)
   Yes   No

*Please enclose photocopy of current student ID.
** Access to the TCS is contingent on WAP having a current home telephone number for the member.

Applicant signature and date

Washington Apple Pi, Ltd
12022 Parklawn Drive
Rockville, MD 20852

May / June 1999

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