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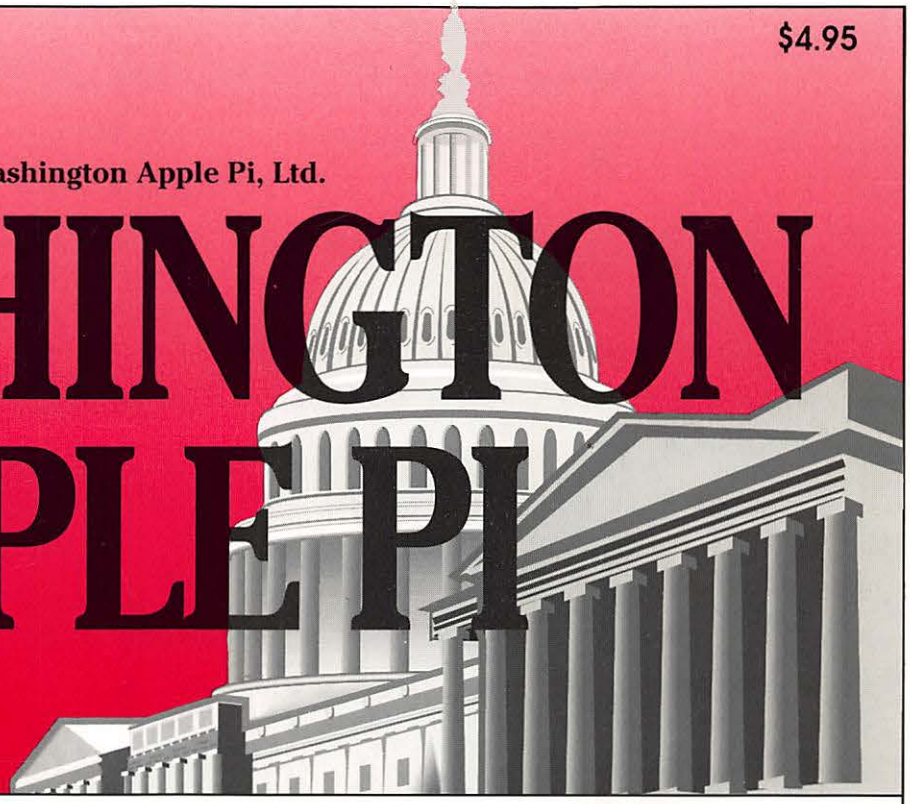

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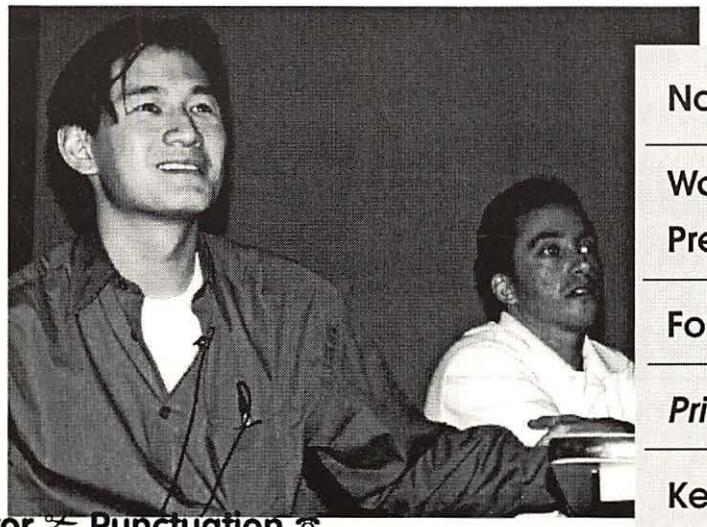

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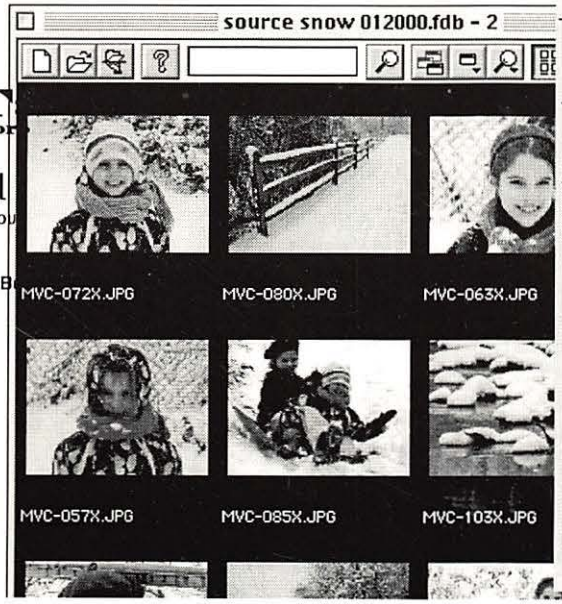

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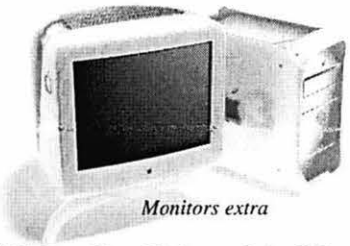

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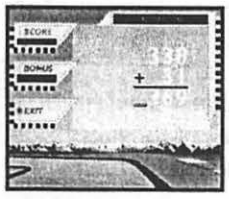

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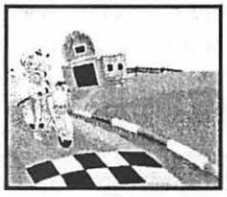

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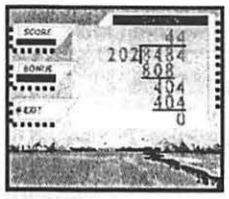

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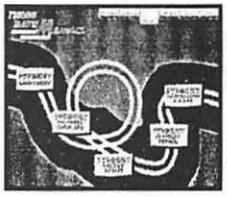

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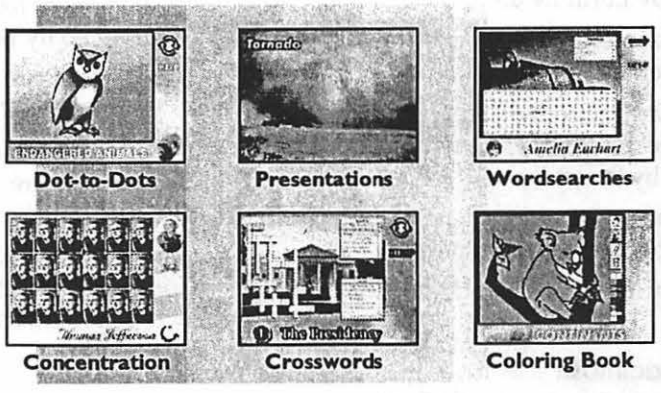

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Washington Apple Pi

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

The page layout program used was PageMaker 6.5 the word processing program was Microsoft Word 5.1; the principal typeface is Palatino (10/12) for the articles; and Avant Garde Demi for headlines, subheads, and emphasis. Charlemagne Bold for drop caps.

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

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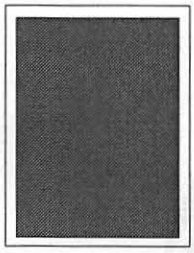

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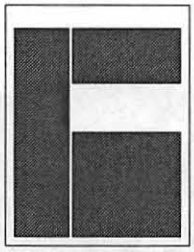

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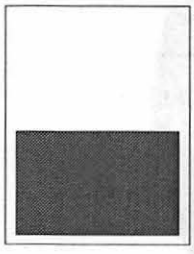

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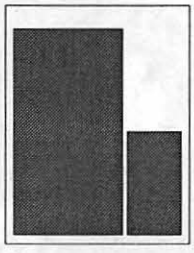

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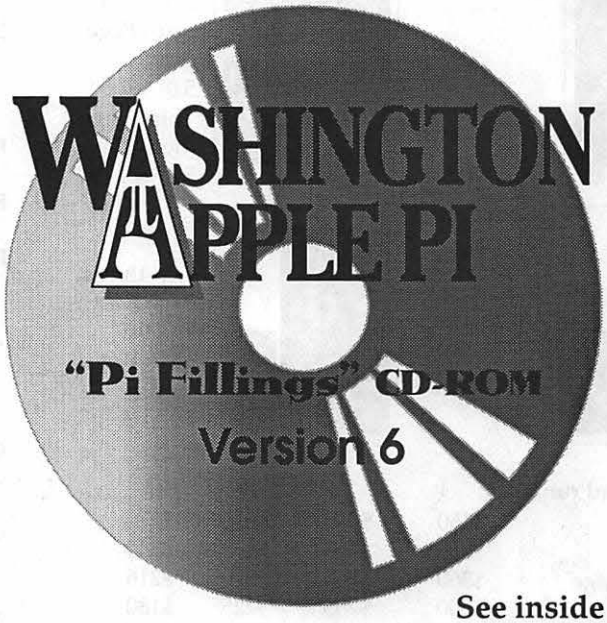

See inside back cover for more details

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Not Lawrence's MacWorld

IF YOU FOLLOW the financial numbers for Apple you know that Steve Jobs and his management team have undone much of what was crippling the company. He found good people looking for someone to point the way, marshaled the company's assets, and made things happen for Apple. Steve found a vastly improved manufacturing and inventory management infrastructure which he put to good use. He changed advertising agencies along with the tone and theme of the corporate message. The rest you know.

Now, Apple has time to look around at the odds and ends that escaped the initial housecleaning and address some corporate orphans that are still wandering around the campus. My favorite orphan, and the reason for this column, are the very real problems of the thousands of Displaced Apple Persons (DAP) on this planet who own a Macintosh. These DAPs are hungry for two things: (1) new DAPs need a support structure to help them with their new iThing; and (2) the existing base of owners needs something warm and fuzzy to which they can relate when their Macs give them the cold shoulder. Apple needs to find a way to accommodate these needs without spending an inordinate amount of money.

I believe Apple's "business model" in place today to provide that support reflects an ambivalence within senior management. This is not a bottom up story where I bemoan the paucity of user group support to Macintosh owners. This is a top down story wherein I make the case that only a change in the attitude of senior management at Apple will undo the sorry state of its after sales support. I believe there are people at Apple who are aware of how much more effective support could be under a different model from the one used today. Come with me and I will show you.

Apple has to make a decision as to whether it is a product company (buy something that requires negligible tech or warranty support, use it until it drops and return to the market for another) or a consumer company (in which case there is an obligation for more hands-on contact and after market support—or there won't be another sale to these folks.) Obviously, I see Apple as the latter with follow-on obligations. I don't see Apple as being of one mind on this critical question—which may help explain why Apple is so inconsistent in its support for owners.

A look at the data that is collected in Cupertino about new owners reveals that many of the folks buying iThings are not the Twenty-something people folklore would have us believe are the majority of the purchasers. It also turns out that when Mr. and Ms. America walk out of a retail store with their iDevice, they walk out alone. I'll elaborate in a minute. The impression fostered by the marketing and advertising departments that the only difference between an iMac and a toaster is the size of the openings on the top is proving to be illusory to these new owners. You and I know the toaster analogy is rubbish; now new owners also know it. There isn't a bootable interactive tutorial CD or even a gen-

eral purpose instruction booklet in the iBox for the literate to peruse. Even toasters have some printed instructions.

Welcome Home iMac

Mr. and Ms. America arrive home with their shiny new iThing. The family believes that it bought the right box and, by extension, attached themselves to a user friendly company. But that "friendly" company has no one near this family to provide the most mundane assistance. The dealer either is long distance or finds that basic hand-holding eats prodigious amounts of time—which it does. They are now alone with their purchase. If only they had purchased a PC, mom or dad could take it in to work and have the company IT tell them what to do, or fix it. The reservoir of good will begins to leak.

Well, my resourceful family has found a not-so-cheap source of support. The closest thing there is to an Apple "safety net" is for the family to call 800/500-7078. There used to be local dealers, but you already know that story. That safety net is there for at least one year on a new iProduct. Calling the 800 number is good for anything from the most mundane questions to explaining why smoke is rising from inside their new iDevice. Apple is getting lots of calls; like how to connect the keyboard, and where in the box is the desktop. It is the stuff you would expect to learn in our "Introduction to the Mac" classes. Decent bucks and lots of hours are being expended in Austin, Texas (the home of tech support) to answer these new owners. Apple even brought technical support back inside the company in order to improve the quality of that support. Now, when you call, you are talking to a real Apple employee. But, a call to find the desktop costs about as much as one that concludes the hard drive has died.

There is no discount to Apple because those teletechs work directly for the company. It takes training to help them become competent to answer a question. That training is further complicated by the reality that new owners are more likely than not to be older and first time owners of a computer, or cross-overs from the dark-side of computing with all that bizarre reasoning to unlearn. It is turning out to be expensive to service these callers— to provide the after sales support a progressive consumer products company needs to offer if it wants to build customer loyalty. And, in case you are wondering where Apple fits

> "A look at the data that is collected in Cupertino about new owners reveals that many of the folks buying iThings are not the Twenty-something people folklore would have us believe are the majority of the purchasers. It also turns out that when Mr. and Ms. America walk out of a retail store with their iDevice, they walk out alone."

in customer satisfaction, look at the September, 1999 issue of Consumer Reports. Apple didn't do so well. Corporate representatives claim to want to become Number One in a couple of years. So, what kind of tools is Apple going to have to bring to bear to make this promise come true? All of them.

Apple, Inc. is like an orchestra. It can play "chopsticks" or Chopin. No management in these lean-mean times can afford to disregard a major component of its orchestra. If it does, the price to be paid by the other instruments will not be insignificant. Given where I sit, I am particularly interested in the section of the orchestra where the user group instruments are located. Those tools are being misused at best; more often are not even in the equation. The orchestra leaders at Apple do not trust us; I once used the term margainalized to describe it. Surely there are examples of consumer industries that have a positive relationship with their customers that could serve as a model for Apple to consider. After all, as far as I, and too many others are concerned, the current paradigm at Apple for corporate/consumer relations might be described as bipolar. You are going to have a hard time convincing me that existing owners of Macintosh computers are not fertile ground from which to obtain grass-roots assistance for new Mac owners vice some pricey 800 technical support line.

Are You A Ford?

So I hoofed it off to visit some of the local Volvo dealers in the greater Washington, DC area to talk to them about their relations with customers. Wow, I could not believe what I saw and heard. Volvo wants you to be pleased with your purchase and to buy another one some day. Clearly Volvo and its dealers see value in maintaining a positive relationship with you after the sale, and the Volvo car club is part of that picture. One of the dealers suggested I go visit a Harley-Davidson store and learn about Harley Owner's Groups (HOGS). I was about to experience a completely different dynamics from the dysfunctional one in which we exist.

Visiting The Byteless

Just look at typical H-D showroom; this isn't what your dad remembers fondly. New and used sales, service, accessories and clothing in a wide, spacious and inviting atmosphere. Existing owners are as welcome in the store to browse and smooze as a newbie. And, should you buy a bike, you do not ride out of

the dealership alone! You are given a one-year membership in the corporate Harley Owners Group (HOG). Most dealers sponsor a local chapter which you are encouraged to join. You are [pardon the expression] considered family and treated as such. After the sale, a relationship begins in which at least two parties, H-D and the dealer have clear incentives to see nurtured. The growth in that relationship is propelled by the corporate office responsible for owner group relations which is *not* a part of the company tasked with selling bikes.

H-D provides incentives to the dealer to maintain that relationship, and the dealer has its own incentives to add to those so as to keep the customer and the owners group healthy and functional. The Owner's Group is a separate entity within the company with its own measure of value-added creativeness to bring to the Harley bottom line. What a contrast to what we endure! It can't be that only user groups can see this mix: state-of-the-art computers, peripherals and complimenting accessories in an attractive retail setting, coupled with a user group community encouraged to support Apple and its retailers for the mutual benefits all derive.

Just to be clear on one thing: I am not advocating that Apple create a national Macintosh Users Group. I want, instead, to focus on the most basic difference between Volvo and Harley-Davidson on the one hand and Apple on the other. In two of the three, there is a realization by senior management that these companies are consumer companies; there is no ambivalence! Once you buy their product, you are [again, forgive me] family. Look at the corporate charter for the office charged with responsibility for consumer rapport: is it selling more product [Apple], or to involve the already sold into the community of owners [H-D and Volvo]? I don't own a Harley and have no plans to purchase one. But, the infectious enthusiasm that radiated from the Harley owners with whom I met to discuss their relationship with Harley-Davidson and their dealer has NO parallel, nothing comparable what-so-ever, within Apple Computer, Inc.

The difference between the way Harley or Volvo treats an owner and that of Apple is so different as to call into question someone's business model. I don't want to hear that automobiles, motorcycles and computers require different treatments for their owners —that's happy crap. And don't give me some jazz about it being the fault of the user group. You happen to belong to a very functional group. Our relations with you and with our regional dealers is similar to the H-D and Volvo models.

When you call Washington Apple Pi during office hours, a real human answers the phone. We produce CDs and classes for you and offer them to other user groups at a serious discount. Our monthly meetings and garage sales are family affairs. Our relationship *begins* when your plastic clears. It is fulfilled when you say "Thanks" for something we did *for* you or when we can say "Thanks" to you for something *you* did for another member of the Mac community, whether or not that person is a Pi member. It is the look on the faces of school kids who are on the receiving end of one our refurbished computer donations. Contrast that with what I found when I visited with several groups while traveling on the West Coast. Sure there is a difference in scale; but that is not the measure that leaves me shaking. Their survival model is akin to what probably saved the small town of Oberammergau from the plague in 1633. The Cloisters established during the so called "Dark Ages" fit that model equally well.

So, I vote for a top down change in the relationship among Apple, its customers and the too few functioning user groups left out here. There is a synergy to be found in harnessing

"The difference between the way Harley or Volvo treats an owner and that of Apple is so different ..."

the pieces that collectively are: post sales support, user groups, and the new boutique stores [that "may" come to be] that should not be discounted. In plain English, anyone proposing anything short of this is rearranging those famous deck chairs or about to apply Bondo to a rusting fender. The attitude that radiates from corporate Apple concerning its customer base and the few organizations that are trying to hold that base together is antithetical to any kind of a bottom up restructuring. Arrogance is what it reflects and ignorance is what it masks. Apple, Inc. is neither rich enough, nor so in control of its market share, as to afford to maintain its palpable disdain for customers.

Holistic Music

Earlier I described Apple as an orchestra. Right now, the conductors seem oblivious of the discordant notes and out-of-tune instruments found in the retail, support, and user group sections of that orchestra. The result is some sections of the Apple Orchestra working harder to overcome the limitations placed on others. But, there are some new managers within Apple who, if given the charter, can take this out-of-tune problem to a new home, to a place where a different value structure is used to measure worth. In such a setting the synergy to Apple from developing a new mix of retail shops, national service and support, and user groups providing grass roots assistance should be obvious. A more functional cross-cultural relationship will be fostered, the Fat Lady will sing, and I can find a new topic on which to write. Forget a coat of paint.

—Lorin

Washington Apple Pi Board of Directors Notes

December 8, 1999 Meeting

[Note: these are not the full minutes of the Board of Directors; those may be found on the Washington Apple Pi bulletin board, the TCS, in File Transfer Area 5.]

Directors Present: Lawrence Charters, John Barnes, Dave Ottalini, Brian Mason, Dave Weikert, Don Essick, Steve Kiepe, David Harris, Dale Smith, Mary Keene, Pat Fauquet, Lou Dunham, Lorin Evans
Directors Absent: none

THE BOARD was productively engaged in brochure folding until the meeting was called to order at 7:50 p.m. Then they continued to fold some more. The minutes of the previous meeting were accepted without much in the way of comment beyond a grunt or two, and the gentle rustle of paper.

Old Business

There was an extended discussion of how to define the job of Washington Apple Pi office manager, and what characteristics we want in the person who fills this role. Narrowly defined, the office manager follows established procedures to process membership applications, renewals, and inquiries; handles "retail" sales of club materials; conducts routine bank transactions, and similar clerical and office management functions. In reality, the current office manager does much, much more.

In listing "musts" for the office manager, the Board came up with lots of them. A suggestion that the office manager also be trustworthy, loyal, helpful, friendly, courteous, kind, obedient, cheerful, thrifty, brave, clean and reverent was met with general approval until someone pointed out this was the Boy Scout Law. This was followed by a brief discussion on whether this was also the Girl Scout Law. President Lorin Evans concluded the subject was being beat to death, so the conversation turned to...

The December Garage Sale is this Saturday, and all Board members are strongly encouraged to attend and help out. Based on the number of phone calls and a flood of hits on the Web site, the event should be well attended.

Steve Kiepe moved that the meeting be adjourned, with a second by Dale Smith. The fleeing horde approved the idea at 8:59 p.m. ■

Board of Directors Notes

January 12, 2000 Meeting

[Note: the Board had not approved the minutes of this meeting as of this writing. Full minutes of the Board of Directors meetings may be found on the Washington Apple Pi bulletin board, the TCS, in File Transfer Area 5.]

Directors Present: Lawrence Charters, John Barnes, Brian Mason, Pat Fauquet, Dale Smith, Lou Dunham, David Harris, Don Essick, Steven Kiepe, Mary Keene, Lorin Evans, Dave Ottalini
Directors Absent: Dave Weikert

IN AN unusual use of the third person, President Lorin Evans pro claimed, "Painfully late, he calls the meeting to order," at 7:58 p.m. Lorin excused his tardiness by explaining that he was still on West Coast time, having just arrived from BWI and MacWorld San Francisco. The minutes were approved via the usual lack of complaint.

Old Business

The Board looked at the results of the December Garage Sale. In particular, the Garage Sale was compared with results of three prior sales. There were two items of particular note: (1) winter events tend to generate more participation (from members and visitors) than summer events [barring extreme weather]; and (2) expenses have skyrocketed as volunteer help has declined. One thing that hasn't changed is the enthusiasm and appreciation of the membership for the Garage Sale.

Given these findings, combined with projected staffing changes, the future of the Garage Sale requires far more volunteer effort. While volunteers for the event are plentiful, a standing committee should do the planning and coordination of the event, not the single-person Pi staff. More attention should be paid to finding inexpensive venues, planning and staffing complimentary activities, finding less expensive furnishings, collecting donated items for door prizes, coordinating and creating advertising, and in general performing useful work.

By the close of the next Board

meeting, the Board must approve the election rules and timeline of the May 2000 Pi election, and appoint an Election Committee and Election Challenge Committee.

New Business

Lorin Evans and Pat Fauquet both attended MacWorld San Francisco. Lorin and Pat described an event attended by 85,000 happy Mac users over four days, filled with lots of new, exciting products and services.

After spending several hours with Apple officials at several events, Lorin came away with the impression that Apple has next to no interest in user groups. As he put it, they see user groups as increasingly irrelevant, providing nothing of value to Apple's bottom line.

Lorin also talked about changes in Apple support policies. After suffering withering criticism in the press for their poor telephone support, they talked about scrapping the current system and revamping it with a centralized support facility with much higher visibility within the company. Apple is also planning on selling CD-ROM-based training on servicing Macs, with a Kaplan-style test for certification. Notably, certification will mean you are "certified" to work with Macs, but not "authorized," authorized service will still be restricted to businesses with Apple contracts for sales and service.

Pat agreed with much of what Lorin said, but emphasized new programs, new hardware and new services. She was impressed with the bustling, enthusiastic crowds of MacWorld San Francisco, simultaneously more laid back but more fired up than the MacWorld New York crowd. She reported that the enthusiasm wasn't limited to just show visitors; all the vendors seemed equally ecstatic.

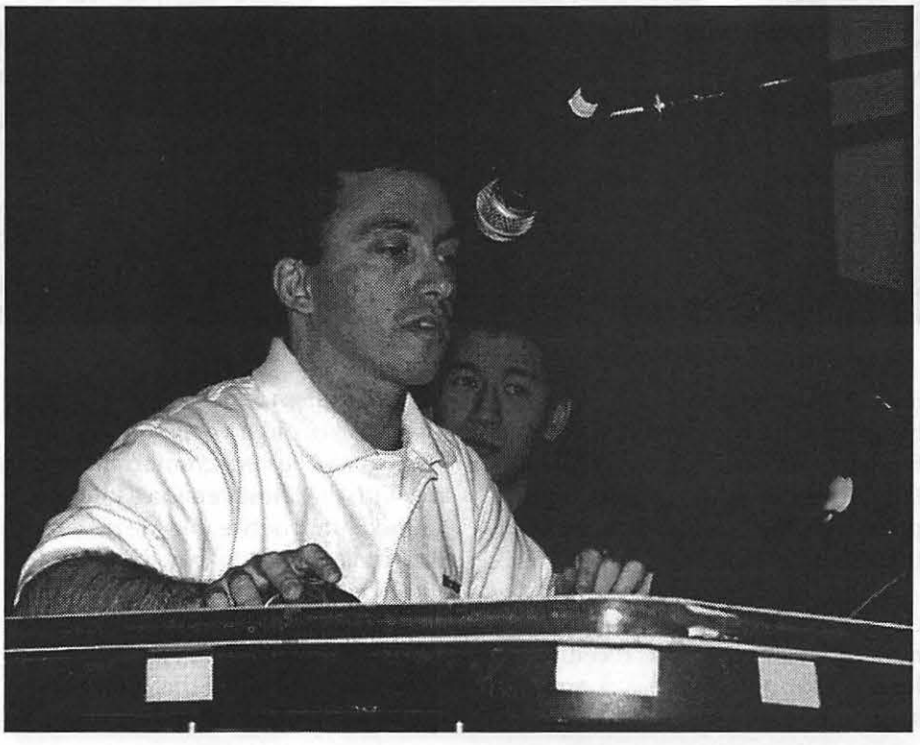
The meeting was adjourned at 9:23 p.m. ■

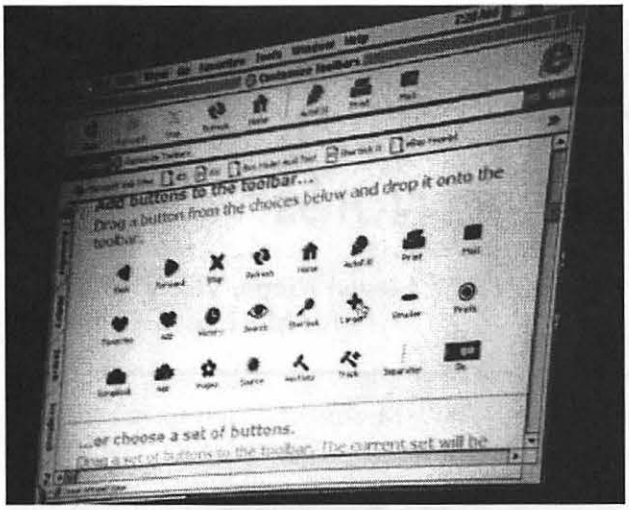
January General Meeting Notes

By Steven Kiepe, Vice Presidents for Macintosh Programs

COLD AND BITTER winds, with high temperatures below 30 degrees awaited our visitors from Redmond, Washington for the January general meeting. A somewhat reduced size throng of hearty individuals gathered this frosty morning to preview the next generation of internet tools, Microsoft's *Internet Explorer 5*, and *Outlook Express 5*. The crowd was well rewarded for their willingness to venture into the cold and it appears that a new "fastest gun" is about to debut in the browser world.

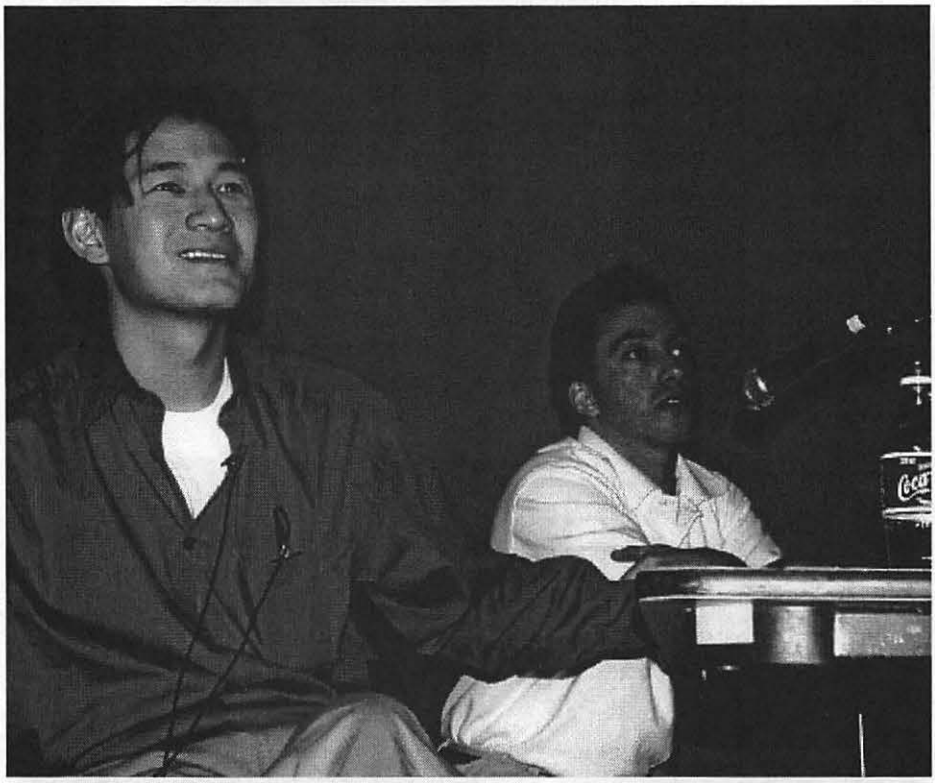
Microsoft Macintosh Product Managers Glenn Myers and Irving Kwong blew into town on the heels of a major cold front but brought plenty of good cheer and more than a few outstanding door prizes. They kicked off their presentation with a rundown on Microsoft's recent announcements at MacWorld San Francisco. Of much interest to the crowd was the acknowledgement that Microsoft is working hard on the sequel to the highly lauded *Office 98*. This still unnamed new version will be compatible with "legacy" *Macintosh* operating systems includ-





space bar and views can be set up to reveal only read, unread or "threaded" messages (those that have been replied to or forwarded). A dynamic history is created between messages, revealing message threads and creating a link between them. The resizable preview pane has most of the same features available in the larger message viewing window including autotext cleanup and font size adjustment (to get rid of the strange characters and out of alignment formatting that often result when messages are captured and resent).

Not only is *Outlook Express 5* a great email and news application, it also has a built in address book with multiple fields that can be customized to hold extensive amounts of information on each individual record. This data could include birthdays and other major events, and up to 16 phone numbers and 13 email addresses per record. The application is also smart enough to only display the fields that have data entered. While the program still lacks some of the functionality of the *Windows* version of Microsoft *Outlook*, the gap has been closed greatly.



The second application in this one-two punch is *Internet Explorer* 5, to be released in late February or early March. It looks like a sure winner and even *Netscape* diehards came away impressed. With an extremely customizable interface, it can be configured to display web pages at the *Windows* standard 96 dot per inch (dpi) display or the *Macintosh's* default 72 dpi. This feature ensures that web pages optimized for *Windows* and using small fonts will still be legible on the *Mac*. Additionally, the improved rendering engine significantly accelerates the speed at which web pages are displayed on the Macintosh.

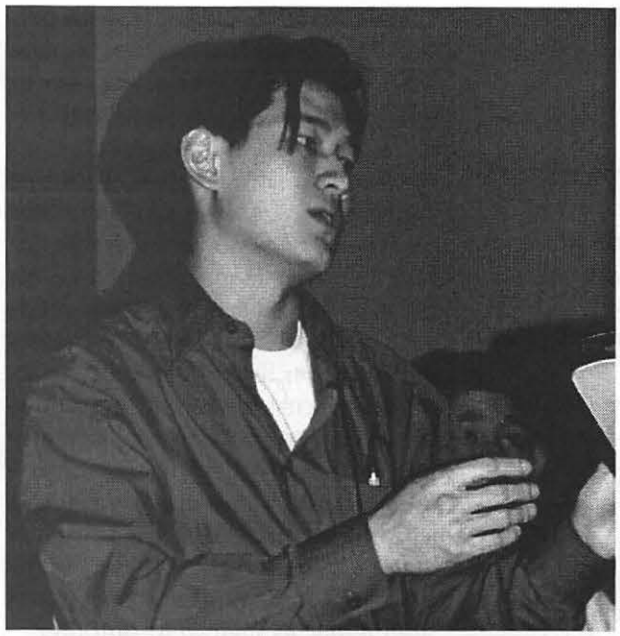
Many specialized functions are built into *Internet Explorer 5*. An intelligent search function accesses multiple search engines. There is a print preview feature to ensure that the web page you want is what you'll actually print. There is even a built-in auction tracker function for all of you electronic auctioneer addicts!

After fielding more than two hours of demonstration and questions, it was time to start winding down the meeting. Glenn and Irving brought a generous selection of prizes for the raffle, and with odds better

ing *OS 9* and will be closely followed by a *OS X* native version soon after the latter makes its debut. More details on these new versions will be posted on the Microsoft website, as they become available.

The core of the meeting was focused on demonstrating Microsoft's new internet tools, the recently released Outlook Express 5 and the soon to be available *Internet Explorer 5* for *Macintosh*.

Users of older versions of *Outlook Express* will be very comfortable with the with the latest version's interface. Immediately noticeable are new button icons on the tool bar, designed by the Icon Factory. A new "flag" feature allows the user to annotate mail of interest for later follow-up. Messages can be scrolled through and sequentially paged by depressing the



than 1 in 7 of coming away a winner, there were a lot of happy people!

A large selection of reference manuals were passed out including copies *of ClarisWorks 5 Compendium* to Clifton Bailey, Tom Culbert and Larry Schwartz, *PageMaker for Macintosh* to Ken Clare, *Photoshop 5* to Bob Mulligan, and *PageMaker 6.5* to William Hark. Quite a few folks ended up sporting Microsoft *Outlook Express* T-shirts including Jamie MacDonald, Rob Clark, Al Lubarsky, Ken Lutterman, Jan Bailey and G. LeBon. The big winners of the morning included Jim Diamond, winner of GDT's *PowerPrint USB*, and three very lucky winners of *Microsoft Office Gold Edition for Macintosh*: Charlie Cooke, Ned Spencer and Ron Green.

Future general meeting topics:

February 26th – Asante on home and office networking, and 3dfx, developers of the new Voodoo 4 and 5 graphic acceleration cards.

March 25th – Corel will present Print Office, a blend of page layout, office form and letter templates, and general correspondence tools, and Derek Mihoka of Gemulators, Inc will demonstrate his amazing Gemulator, a hardware and software solution that allows Macintosh applications to be run on WINTEL based machines.

April 22nd – Adobe In-Design, the new heavyweight champion in the desktop publishing arena. ■

In Memoriam
Harold Herman Greene

In the January/February Journal, I wrote that the antitrust action that split the American Telephone and Telegraph Company into regional operating companies (Baby Bells) and a different AT&T, was an important milestone in what we today call the telecommunications revolution. If we did not know it then; we sure do now. I wrote about the judge, Harold Greene, who presided over both the antitrust case and all the follow-on litigation that continued for years afterwards.

That case was not his life's work. Lawyer Harold Greene was instrumental in the formulation of the civil rights legislation of the 1960s. He worked for vthen-Attorney General Robert Kennedy and is considered one of the principal legal architects of the Civil Rights Acts of 1964 and the Voting Rights Act of 1965 that helped redress serious societal inequities in the United States. He was one of the first lawyers to staff the new civil rights division of the Justice Department where he become head of the research and appeals division. President Johnson appointed him to the District of Columbia Superior Court in 1965. He rose to be its chief judge. He became a much admired jurist and compassionate believer in due process. It was in his court that the aftermath of the riots that broke out in Washington as a reaction to the assassination of the Reverend Martin Luther King, Jr. played out. He insisted that each case brought before his court be heard individually. He was appointed by President Carter to the U.S. District Court where one of the first cases assigned to him was the antitrust action brought by the Justice Department against AT&T.

Judge Greene said he found himself trying to reconcile the position of Justice and AT&T. Justice argued that AT&T was using the profits from its monopoly over local telephone service to subsidize long-distance rates, thus suppressing competition. AT&T and most of the public argued that Ma Bell was a model of efficient and dependable service for which a break-up would bring about major market turmoil. The trial absorbed 11 months of Greene's time. He is quoted as once saying that the natural monopoly of telephone poles and copper wire could not last in a microwave era. He retired from the bench in 1998.

Judge Greene passed away January 29 at his home in a suburb of Washington, DC at the age of 76. He asked that we remember him for the whole body of his judicial work and not just the case involving AT&T. That is not a problem for me. —*Lorin*

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Counterpoint

Dear Readers,

Typically I receive short notes from members commenting on articles in the Journal. Last month, however, two items elicited strong comments: the articles concerning Microsoft and the Department of Justice, and the President's column "Beyond the Pail." I offer for your consideration a counterpoint to Lorin's column on the state of Apple retailing.

— The Editor

DEAR EDITOR,

I have just about calmed down after reading the editorial in the January/February Journal called "Beyond the Pail." If you are interested, I have a few comments—as one Mac shareholder to another:

Lorin wrote in the part called "Moo Juice": "Apple thinks their software updates are another untapped cash cow." Hardly a flattering characterization, but yes Apple has decided to sell the Mac OS rather than continuing to give it away. You still get one free when you buy hardware, but "significant releases" are documented, packaged and priced as if they had some value (call them crazy).

In the part called "Anatomy of a Dying Breed," he wrote: "The network of independent retail stores selling Apple Computer equipment is a shell of its former self. Apple undercut our local dealers in the 80's when it refused to allow them to sell the lower-cost Performa Mac computers found in national chains." Revisionist history, at best. Were there Performa models available only at the national chains? Yes. Did Apple refuse to allow "our local dealers" to sell Performas? No.

Regardless, this is NOT the reason why the number of independent retail stores selling Apple hardware is "a shell of its former self". In the dark years at Apple when "market share" was the holy grail of marketing, someone decided that the correlation between the percentage of computer stores authorized to sell Apple and Apple's percentage of computers sold was not just a coincidence, but perhaps implied a relationship. This "revelation" precipitated authorization of thousands of computer stores to sell Apple—as well as the strategy to authorize the national chains.

"It further complicated their lives by the discount formula for them to qualify for the lower prices Apple charged national chains." Call me crazy, but I don't know of any manufacturer of any product (hardware or software) who doesn't set their wholesale price based on volume. Does this mean that smaller stores pay higher prices than Walmart and Sears? Absolutely. This is one reason smaller stores grow (or merge) into larger chains.

"Apple's Marketing Department blew off the complaints; dealers either walked or quit. The retail market for the Macintosh has never been the same." First, since I lived through that era, I assure you that Apple did NOT precipitate the evolution of the personal computer market - they did, however anticipate it. For several years, Apple told its dealers that they should decide whether they wanted to be high-volume or value-add dealers, and that trying to be both would not be a viable model as the market changed. We described trying to straddle this divide as the "valley of death". Not because Apple was creating this situation, but because the personal computer had reached a stage where the people who knew how to run "warehouse" type stores had become interested in this market.

Apple didn't create CompUSA, WalMart, Frye's or any of the other places where customers were beginning to buy personal computers. We knew that the absence of Apple products in these high-visibility outlets could further limit their ability to attract new customers. As you know, convincing someone who is currently using Windows (and has an investment in hardware, software and learning on that platform) to switch to the Mac is significantly more difficult than convincing someone to consider a Mac as their first computer.

"Unsaid is that Apple is 'encouraging' its retailers to change from relying on retail sales to one where service, training and network installations and support provide the dollars to keep the business alive." The only computers currently being sold by resellers that have large enough margins to support the old model where the dealer made his profit on the hardware and "gave away" service and support are no-name clone PCs. IBM, Compaq, and HP (not to mention Dell and Gateway) all have "razor thin" margins.

IBM moved from a "bundled" model for selling their mainframes to an "unbundled" model where you paid for support and service in 1970. I know because I worked for IBM back then. I have always told dealers that they should rejoice when someone buys their computer from the lowest-cost alternative and then brings it to them for support and service. These are the highest-profit parts of the dealer's business (no inventory, no floorplan, no interest, no commissions).

What too few of them have learned is that the "customer for life" approach to selling works here just as well as it does for automobiles. If you

focus on the customer, not the sale and spend some of your marketing dollars on customer retention instead of new customer acquisition, your customer base becomes one of your largest assets.

"Apple once offered what was called price protection to a retail shop. If Apple dropped the retail price on a product, the dealer who had unopened stock could either return the higher priced items for a credit, or receive a credit on future purchases." First, Apple does not set (or drop) retail prices. Apple sets the price at which it sells to the distributor or dealer. This price certainly influences the retail price, but does not set it. As for price protection, most hard-goods manufacturers have some type of price protection. This is a requirement if you want your dealers to stock inventory. The down-side to having a multi-tier distribution model is that when you introduce new models, the value of this inventory is instantly less (sometimes significantly).

There are two choices for the manufacturer: take back the inventory and redistribute it (adding 2x shipping cost to the cost of goods sold - AND probably reducing the wholesale price to move the now less-than-current hardware); or give the dealer holding the inventory some credit (also reducing the cost of goods sold) to allow him to sell the product at a lower price.

In today's economy most hardware manufacturers have recognized this as a highly inefficient procedure which also wreaks havoc on their financials. Especially when product cycles are shorter than ever and the speed of Apple's distribution system is better than ever. In a perfect world, the dealer should have only one day of inventory (whatever that is for him) on hand. This reduces his overhead AND the amount of inventory "in the channel".

"There is a strong belief in the retail community that Apple is developing a company-owned chain of retail stores, modeled after the ones they operate in Australia." Check your facts. Apple doesn't "own" these stores. What Apple has done is to work with locals to create an "Apple-branded" retail chain. This has been done largely in countries where their entry into existing (if any) computer stores was considered nearly impossible.

The plan presented to Apple dealers, VARs and Solution Experts at their recent meeting in San Francisco will encourage dealers to embrace a new standard of retail branding (including signage, display and merchandising) which will be supported by the Apple Corporate efforts to build the brand.

"Fortunately, there is a strong nation-wide supply of parts to support these new orphans and knowledge on how to repair them." Really? These machines are "orphans" only in the sense that Apple has decided that they cannot be included in an AppleCare contract. Apple, like all manufacturers, is required by law to stock service parts for machines "during their useful life". This means that this nation-wide supply of parts is in fact maintained by Apple. AppleCare is like insurance: Apple is betting that the average cost of machine repairs will not exceed the cost of AppleCare; the AppleCare purchaser is betting that the machine will require more repairs. The older the hardware, the higher the risk - also, the larger the pool of insured, the lower the risk.

"How does the dealer establish a relationship with you for support if the computer is serviced directly by Apple?" The same way he does if the computer is manufactured by Apple: by facilitating the transaction - as a customer service. This is NOT a trend. The only products treated this way are PowerBooks and iBooks. Have you ever been inside one of these? Apple's reasoning is that portable systems are difficult to repair - and their rapid repair is arguably more important to the customer than typical desktop systems. The goal is better customer satisfaction - and faster attention to potential problems which might need engineering changes.

"You, the person looking for a new computer are attracted by the lower national's price, blow off their crappy service knowing that you can go to the local independent, but won't give him the retail sales business to save a nickel. Good reasoning. What is the message from your decision for independents?" Well-said. Apple is doing everything they can to make the users' experience as good as possible. From the design of the user interface to the availability of machines to the attention to quality of service provided by Apple dealers. Apple doesn't decide what is important to the customer - the customer decides by his willingness to pay for it. Apple depends on customer feedback to understand what these things are.

Based on the last two years, Steve has demonstrated an uncanny understanding of what is important to Apple customers. He has made some unpopular decisions and effectively "fired" some of Apple's customers as well as some of their resellers and distributors.

Hard to argue with the results, however: Apple is in better shape financially than any time in the last 5 years; the Macintosh product line is once again viewed as innovative and "leading edge design"; the iMac and iBook are bringing significant new users to the platform; developers are returning with excitement; Apple stock (remember that I started this as a message from one shareholder to another) hit an all-time high this week.

Being a computer dealer is a very difficult occupation. I am intimately acquainted with the problems they face. It must not be an impossible task, since so many people choose it. There are still a number of Apple-only deal-

ers - who are much happier today than two years ago. I would not presume to tell one of them how to run his business - and hope they won't tell me how to run mine.

For the 5 years I was in private practice as a consultant, I declined every opportunity to make money on the sale of software or hardware - believing that it represented a conflict of interests, since my customers paid me consulting fees to recommend, install and maintain their hardware and software. Many of the consultants I work with today have this same opinion.

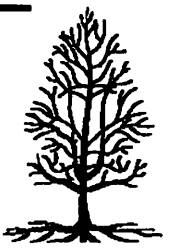
When I purchase hardware and software for personal use, I use all available resources to make an informed choice, pay the lowest price and attain the earliest possible delivery. Sometimes this means overnight delivery from a web or catalog dealer. Many times it means patronizing my local stores.

Who gives me more "customer satisfaction"? Since all these sources are focused only on price and availability, it varys from one occasion to another. Interestingly, I get email from MacZone, Amazon and Garden.com recommending new purchases and highlighting special offers! When I visit Amazon.com, they "recognize" me and make suggestions based on my previous purchases! Isn't it interesting that none of my local stores seem to be looking beyond the sale? I receive "flyers", but nothing specifically addressing my interests.

Thanks for reading - I wanted you to know that I do read your editorials, even though I seldom respond like this (probably just as well).

[name withheld by request]

Minutes, Genealogy SIG, 11 Jan 2000



THE MEETING convened at the scheduled time, 10 AM, on January eleventh, in the WAP classroom with six members present.

Ed Jordan announced that he and Mary are expecting to move to a retirement community in Kennett Square, PA, right alongside of Longwood Gardens. They will have three months to move after a suitable place is offered. Many of the duties he now performs for the SIG will have to be taken on by other members if the SIG is to continue. Ed pointed out that the Pi Directors, the Journal Editor and Beth at the WAP office need a single point of contact, or possibly co-chairs, for all SIG matters including scheduling a meeting place, publication of the minutes in the Journal and responding to general inquiries. The Genealogy SIG should also continue to have a name or names listed under 'SIG Chairs' in the Journal.

Karen Kyte passed around two copies of magazines she picked up at Borders Books: 'Family History Monthly' and 'Family Chronicle' from England. The latter has an article on using computers in its Jan-Feb issue.

In a journal or magazine on New England genealogy there was an ad for a CD set containing three million names of immigrants from 1538 to 1940, showing all the source information. Unfortunately, one cannot find all of the sources, and many ports of arrival are not covered for all years. There was discussion of whether a few members should share the $60.00 cost of this set. Alex Maish noted that

"Ed Jordan announced that he and Mary are expecting to move ....They will have three months to move after a suitable place is offered. Many of the duties he now performs for the SIG will have to be taken on by other members if the SIG is to continue. "

last year he was shown photocopies of immigrant ship manifests for ships arriving in Philadelphia in the 1700s. Comparing the handwriting of the passengers, he could see that an ancestor had arrived twice, two years apart. He was told that many immigrants, once settled down, returned to their home countries to bring back fiancees or wives and friends.

The general discussion moved on to the PC application Family Tree Maker as an important resource. Although not Mac compatible, it can be accessed through Virtual PC, which now costs $170.00. It has many comprehensive CDs of names compiled from public records. They usually lack details and sources, and many of the references are unpublished. Another good resource is a magazine which costs $50.00 per year available from www.Ancestry.com.

Ed Jordan was in England in 1997 with a group of cousins looking at old church records held by Shire Record Offices. He found the English to be very helpful, and the group was able to request photocopies of original records, including wills, that had not yet been microfilmed. On a separate trip to Eastern Maine he found a tombstone with the names of a man's two wives. In researching an ancestor named Buker, which turned out to be Bowker, he was planning to re-

view land records to determine who were the abutters to land owned by his ancestor. Another attendee's FBI friend helped him when the number of land record leads got to be too large. The friend systematically eliminated most of the leads, selecting the most improbable ones, and removing them.

A new member, Halle Cauthen, who works in video public access, has found that the Census is not as reliable as he had hoped. At first, he assumed that if a fact was written down it was correct. Then, in looking for facts about a great grandfather, he found where the first names of a father and his son were reversed. He later got a name and a birth date for his ancestor, but the birth date was a wild guess made at the time of death. He also learned that the name being researched, Doss, was a nickname used so extensively that few of his contemporaries knew that his legal name was Dawson. Halle has found that trying to find maiden names is difficult. Using the web site 'www.myancestors.com,' he posted the facts about an illegitimate wife and mother and got a flock of E-mails in return. When he found incompatible dates in a handwritten record, he used Photoshop to enlarge the image of a handwritten date until he could see the correct date.

Frank Leister, the author of the popular application 'Reunion for Macintosh,' has indicated that he would return to speak to us again if asked. Ed Jordan suggested that whoever wanted to work on some future agendas invite him for a date in the spring which would make Frank Leister's attendance just a year after his first visit to the Genealogy SIG.

Submitted by Alex Maish

Genealogy Schedule

THE GENEALOGY SIG meets regularly on the second Tuesday every month except July and August. All meetings are held from 10:00 AM to approximately noon in the Tutorial Room at the Pi Office in Rockville.

Topics and agendas are announced ahead of time whenever possible on the Pi electronic calendars posted on the TCS and the Explorer Service. They are also published in the Pi Journal when time permits .

Evening or weekend meetings of the SIG have been suggested by some. A volunteer is needed to initiate such meetings.

SIG Topics and Agendas

Prior meetings have covered such topics as the use of U.S. Census records for genealogical research, Civil War military and pension records, demonstration of members' favorite Internet sites for genealogy research, research at the DAR Library, resources of the Kensington LDS Family History Center, services and materials of the National Genealogical Society Library, and a presentation by Frank Leister whose company created and produces the genealogy software "Reunion."

Other meetings have been devoted to informal discussions of the use of the TCS, scanners and topics of concern to attendees, including discussion of members' experience with "Reunion" and other genealogical software.

The SIG topics have covered both how to do genealogy research and how to use computers in such research. By general agreement more emphasis is currently being placed on using Macintosh computers to record genealogical data as opposed to seeking genealogical information through computer sources. Special emphasis is placed on "Reunion" since it is the most widely used software by SIG members.

Bulletin Board

Conference 2, Board 12, on the TCS was established as the Pi Genealogy Board at the request of the SIG.

Upcoming Agendas

Besides general discussion, a presentation on scanners and genealogy is planned, and hopefully, Frank Lesiter will return in the spring ■

Upcoming Meetings

March Meeting

"The Use Of a Personal Web Page In Genealogy Research" will be the primary topic.

A new SIG member who has successfully used this technique will lead off the discussion.

April Meeting

To Be Announced: see the Pi electronic calendar and the Genealogy Board on the TCS on Conference 2, Board 12.

Everyone
has an opinion

ANYONE
can express an opinion

Nobody
cares about your opinion unless you **act**

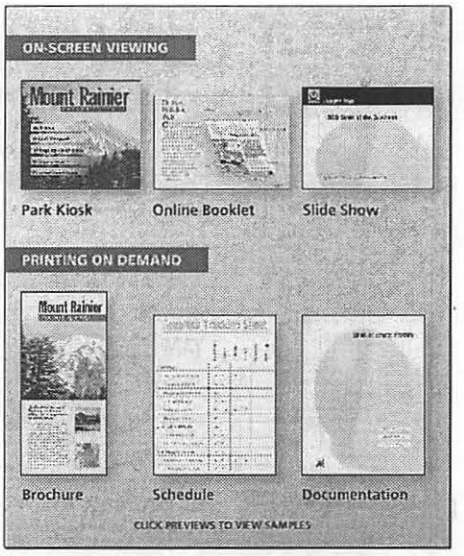
Vote
in the Washington Apple Pi May 2000 election

Volunteer
to run Pi activities

Create
new Pi activities and services

Graphic Arts SIG Report, January Meeting

by Blake Lange



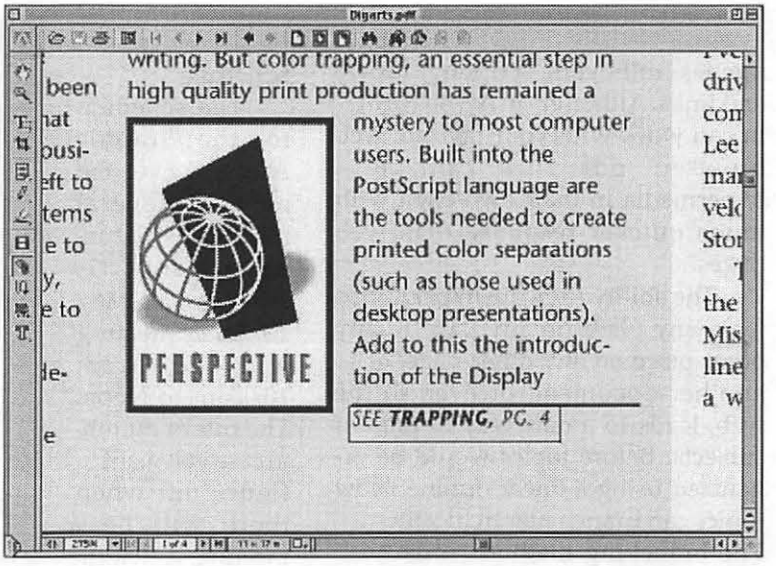
HAVING TAKEN a break in December we met in January where I made a presentation on Adobe Acrobat, a program I have been studying lately.

I started out my presentation by showing off PDF files I had done of the National Voter Registration Act (NVRA) form. One was prepared for citizens to print on their laser printers. The second was prepared for prepress use. It is going to be made available to professional printers around the country in the near future. The file contains pages for each spot color. The pages are extra large to make room for crop marks. Because the NVRA now requires universities to give out this form we at the FEC had to have a way of getting it to hundreds of printers at low cost. This need is the reason I have explored the capabilities of Adobe Acrobat.

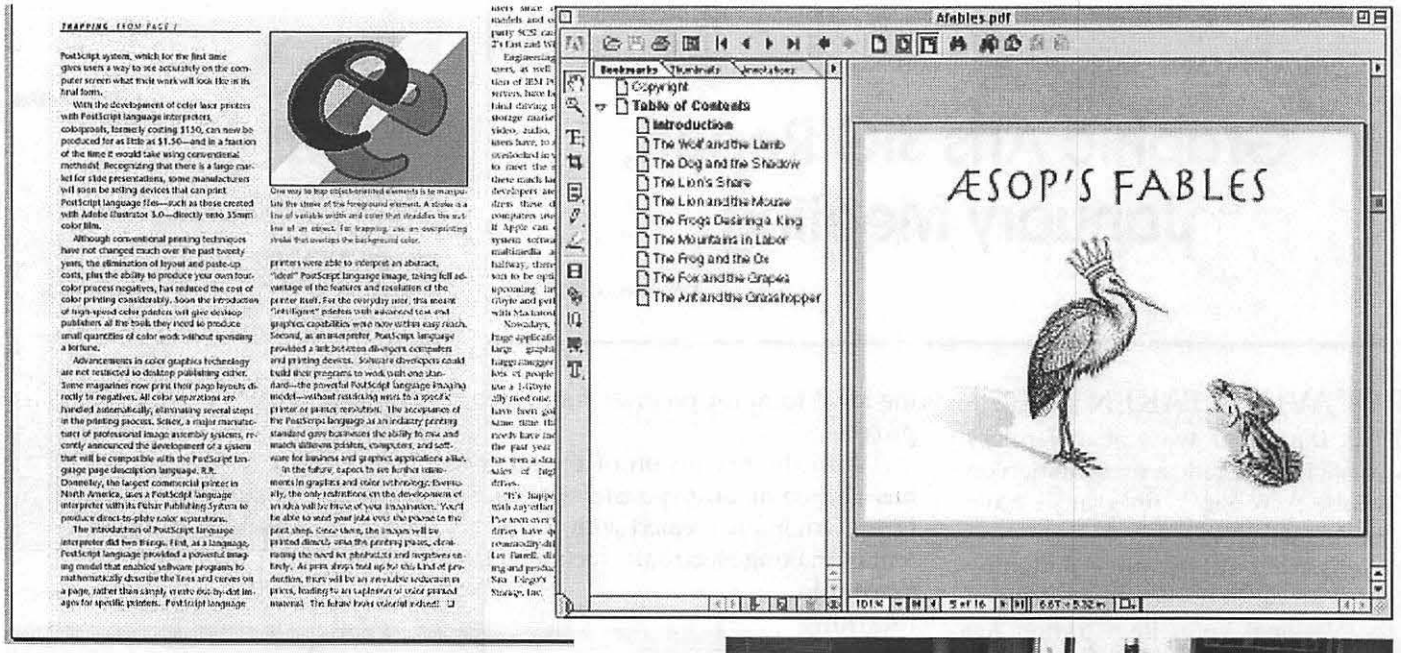
Rather than try to report on what I said at the meeting in this story I will just discuss some of the highlights of the program.

Acrobat files serve many purposes. The portable document format (pdf) was developed by Adobe as a way of sharing files with others even though they may not have the same program or even the same type of computer. Now, in addition to republishing documents developed for print, Acrobat is used for publishing documents on the web and on CD-ROM that will never be printed. It is also an inexpensive way of making design projects available for review during the production process. It is the ideal form for prepress for some projects.

With the expansion of purpose has also come an expansion of features. Originally created with the intent of making electronic documents available retaining all the graphic design of the original, pdf files now can be much more interactive with the user. There are buttons, annotations, bookmarks, sounds,



Adeline & Associates



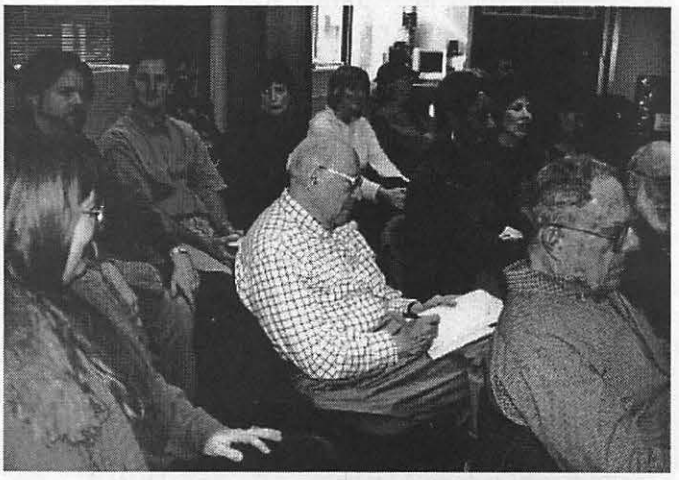
movies, roll-overs, scripting, forms, and links. Although an Acrobat plug-in can work with your favorite web browser, pdf files can be a hypermedia in their own right with much quicker response than web pages.

The ability to create hyper jumps from any place on any page to any other place on any other page, or to another document, or even to the web, leads to a new way to present subjects. Before topics would be organized using a linear outline. Now topics can branch hierarchically.
The branching method lends itself particularly to improving on-screen viewing. So brochures and booklets moved to the computer can be enhanced through reorganizing the way material is presented.

Attending the meeting were Blake Lange, Sy Deitchman, Linden Tucker Bell, Rich Schmidt, S. Mason, Diana Buell, Sonny Tohan, Helen Dilley Barsalou, Virginia Sheard, Harald Hoiland, Ann Lesnik, Arthur Hoiland, Etana Finkler, Laura Leigh V. Palmer, Rob Kleinsteuber, Ed Goldstein, Bobbi Simmons, and Michael Oliwa. ■

Schedule

The schedule for the Graphic Arts SIG over the next several months is Saturdays March 11, April 8, and May 13. 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 right. From the Shady Grove Metro stop it is just a short taxi ride.

Washington Apple Pi 2000 Computer Summer Camp

Washington Apple Pi Computer Summer Camp 2000

When: The Summer Camp is a two week computer camp for teenagers. The session will be held from Monday, July 24 through August 4. Camp is from 9:00 a.m. till 5:00 p.m. (Monday -Friday)

Lunch each day will be from Noon till 12:45 p.m. Students are responsible for bringing their own lunch or bringing money to purchase lunch from a delivery restaurant.

Fees: $300.00 for each week of camp, or $600.00 for each two week session of camp

To Register: write to Pat Fauquet (pat.fauquet@tcs.wap.org)

Short Overview: This is a hands-on, technobabble-lite camp. Each camper will:

- ☆ Brush-up on Macintosh skills
- ☆ Master advanced user techniques
- ☆ Learn to use video, sound, graphic equipment and related applications
- ☆ Master applications for developing web pages
- ☆ Design, build, and manage an appealing personal page on the Internet
- ☆ Learn Sherlock search technology for home and school use
- ☆ Learn how to network computers
- ☆ Learn to operate a Macintosh in a multi-platform environment

The final web page design will be posted to the Washington Apple Pi web site for 30 days so everyone can see what you have created.

Commercial applications that will be used during the session:

- ☆ Macintosh Operating System 9
- ☆ Adobe PhotoDeluxe
- ☆ Adobe Photoshop
- ☆ Claris Home Page 3.0
- ☆ MovieWorks
- ☆ Internet Explorer
- ☆ AppleWorks
- ☆ Adobe PageMill
- ☆ QuickTime 4.0
- ☆ Adobe GoLive 4.0
- ☆ Netscape Navigator

Summary: This is a great camp for any teen who wants to really make the family Macintosh work at home, school, and on the Internet. It is an intensive, fun-paced course that is packed with information presented in as non-technical a fashion as possible. When you are done with the WAP Summer Camp, you will be able to take on almost any computer-related project with confidence and succeed - maybe, even get better grades!

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Warner Brothers Scene Preview Technical Paper Review

by Stuart Bonwit

THE SMPTE (Society of Motion Picture and Television Engineers) Journal for October 1999 has a fascinating piece entitled "Implementation of Intranet Scene Preview for Feature Animation," by Leonard J. Reder and Gene Takahashi. It describes a system with which every member of the team producing a feature animation from top management down to the lowliest inbetweener can have access to review *any* scene in the feature in its latest stage of development. The scenes are stored as QuickTime video clips and are available through a Netscape browser on the Warner Bros. Intranet and viewed mostly on Macs. That Intranet is cyberspace within Warner Bros. behind a very thick firewall.

Each scene may be in any stage of development: story reel of sketches; mechanical tests (for example, camera moves); ruff (their consistent spelling of rough); clean up; and final (color) animation. A scene is described as a continuous "take" without switching camera position; camera and lens moves are OK within a "scene." When any person on the team accesses a scene, its stage of development is clearly stated in a subtitle within the frame with the date and time of the latest update. A person working on a particular scene may want to see the scenes immediately preceding and following his/her own to insure continuity.

The final animation is stored as individual high resolution TIFF frames on magnetic tape for transfer to film. During the course of the film's development all the scenes in their latest stage are stored on tape. However, this data is not available to the large staff working with non-workstation computers. So, "software was developed to automatically generate QuickTime movies and to create HTML (HyperText Markup Language) pages for accessing them...The software ran automatically every night and made updates to the web pages while generating new QuickTime files for scenes that had changed." It even generated an e-mail message addressed to the whole team each morning notifying them exactly which scenes had been changed.

The generated QuickTime movies are created in two resolutions (both less than the final): low resolution 320x240 pixel frames compressed with the Apple Video codec (coder/decoder) (just the way I do it!); and higher resolution 720x540 pixel JPEG compressed. "The 720x540 format is D-1 video compatible resolution used in desktop nonlinear editing systems." (Note: D-1 is a standard digital format used by television program producers.) The user can choose between resolution and download time. All scene resolutions are recorded at the standard motion picture 24 frames per second.

The download speeds were indicated in table below (not all listed here):

The process starts with a story reel of sketches that are locked after approval of the director. Temporary or final dialog is added. The reel is then broken down into individual scenes. The ruff stage of each scene results from a series of drawings by animators either by hand or computer and may omit frames. After the director approves these scenes, they are entered for the first time on the Web. Scenes on the Web in ruff stage are labeled "(Ruff Animation (r)." Next comes the clean up stage where image quality is improved and missing frames are created and inserted. These scenes are labeled "Clean Up Animation (c)." After clean up animation is approved, the scene goes into the final color stage involving many departments to insure that colors are correct and consistent. This stage is labeled "Final Animation (f)."

So far, this review has covered the first two pages of the paper. Twelve pages follow going into infinite detail on how the HTML and the web pages are created, and describing flow charts of the updating process and network configuration. Suggested enhancements of the system include streaming rather than downloading scenes and the addition of serving automatically assembled sequences of scenes.

Being in the middle of making my own homegrown animation, I felt a close kinship to the folks at Warner Bros. whom I have never met! ■

Machine (CPU)/ Network connection:	Download speed (Kbytes/sec):
SGI (Silicon Graphics, Inc.) R4400 MIPS 250 MHz)/ATM	1966
Windows NT PC (Pentium II 133 MHz)/ 10baseT	1179
Macintosh 9600 (PowerPC 350 MHz)/ 10base T	496
Next Step PC (Pentium II 133 MHz)/ 10baseT	373
Macintosh 7500 (PowerPC 100 MHz)/ 10baseT	154

Font of Wisdom

© 2000 Lawrence I. Charters

MACINTOSH computers have been with us for a long time, but most people still don't know how to use them properly. Not just a few, mind you, but: most.

As proof, just look at almost anything written by Mac users over the past decade and a half. Given that the Macintosh almost single handed (neat trick for a limbless computer) revolutionized the world of typesetting, it is shocking to see how many letters, memos, reports, and other bits and pieces of text produced on such marvelous machines look like they were produced on: typewriters.

While this aberration is most pronounced in and around Washington, DC (where "innovation" often means getting rid of the new and going back to the old), this blight is present almost everywhere. Hardly a day goes by without a church flyer or some other organization brochure falling out of the mail, printed in several different sizes of Courier, a monospaced font invented for the IBM Selectric typewriter (in 1961). Or entire letters written in Chicago, a font designed (in 1983) specifically for the Mac's menus, and nothing else.

So, as an intellectual exercise, let us consider a brand-new shopping mall that wants to promote its stable of upscale stores for the discriminating shopper. Here is how the federal government would list the stores, using Courier, of course:

Figure 1 (see top of next column)

While there is nothing wrong with such a list, it tends to look sterile and colorless. Another problem with Courier (and all other monospaced fonts) is that it is harder to read: the eye has to travel the same distance for thin letters, such as j, as for wide ones, such as w. This makes it more tiring to read things written in Courier, as the eyes must travel farther and work harder.

```
Olfactory Outlet
The Pet Exorcist
Home Dentistry Warehouse
One Hour Lobbyist
Instant Friends
Tombstones To Go
Yesterday's Kitty Litter
```

Listing the stores in Palatino, a popular serif font, adds an almost instant elegance:

Figure 2

Slightly Green Lobster
Dial-a-Politician
Coffee Stains: Near Antiques
Yes, You Can Eat That Exotic Foods
Tot City: Deductions to Go
Thesaurus Assistance
Debriefing: Underwear for Presenters

Palatino, by the way, is the font used for body text in the *Washington Apple Pi Journal*. If you take a look through your home, you'll soon discover that virtually every book, magazine, and newspaper uses a serif type for body text. Government reports, of course, usually use Courier, since they are apparently *supposed* to be hard to read.

Some people take the idea of "elegance" a bit too far, and use calligraphic fonts to "add style." Calligraphic fonts are definitely elegant, subtly suggesting days of yore when all text was written by hand using quills:

Figure 3 (see this column, below)

Before you write something in a calligraphic font (in this case Nuptial Script), there are a few things to keep in mind. First, writing with quills is hard on geese. Second, calligraphic fonts are hard to read. While it might be fine for a once-in-a-lifetime event, like a marriage, for lesser purposes it is exasperating. Roughly once a week, a letter or a flyer arrives in the mail

Dog Slobber Candies
Non-Alcoholic Floor Coverings
Container in a Box
Bed & Paternity
Fruitcake Disposal
Him 'R Us Custody Resolution
The Fashion Morgue

written entirely in calligraphic fonts (note: usually more than one). These are quickly dispatched to the recycle bin, unread.

This does not, of course, mean that everything should be written in Palatino and other serif fonts. Traffic signs, for example, are always written in sans-serif fonts: they have simple messages, and want to make their point quickly and emphatically. In our upscale mall, the mall directory would be a good place to have a sans-serif font, such as Optima:

π

Figure 4

Budget Lurker
Rent-a-Kid VCR Programming
Celebrity Kleenex Trading Company
Head-on-a-Platter Just Desserts
Squat: the Short and Fat Store
Books On Tape Bookmarks
Tomorrow's Castoffs and Sundries

Optima, and other sans-serif fonts, should not be overused. Some Web sites, for example, use sans-serif fonts for everything because it looks *different*. Unfortunately, it doesn't look different if overused; it is the contrast with serif type that makes it look different.

An important point to consider: while very small children might read letter-by-letter, literate readers read by the shapes of words. Serif fonts, such as Times (the most popular font in the world), Palatino, and Garamond (all Apple advertising is done in Garamond), are easier to read in small sizes. The serifs at the end of strokes make the letters more distinctive, giving the words more of a shape. Using proper capitalization also gives the words more shape.

To illustrate this, consider the worst abuse of typography in the 20th century: the Surgeon General's warning on packs of cigarettes. Ordered to put the warning on all cigarette packages, the tobacco companies decided to comply in such a way as make the warning all but unreadable. The warning was reproduced in a sans-serif font, all upper-case, with a heavy border and unnecessary lines thrown in, thwarting any attempt to "read by shape:"

Figure 5

SURGEON GENERALS'S WARNING: SMOKING CAUSES LUNG CANCER, HEART DISEASE, EMPHYSEMA, AND MAY COMPLICATE PREGNANCY

Insurance contracts, credit card applications and other forms use a similar tactic, making sure to obscure the parts they really don't want you to read by writing them in tiny, sans-serif type, all in upper case letters. "Combat typography" must be a required course in marketing programs.

But our upscale shopping mall doesn't want to drive customers away. Instead, we want to invite them in to spend money, and one of the least expensive ways to do this is through good use of typography. Good places for distinctive typography are the signs above the store entrances:

Figure 6 (see upper page 22)

Good typography, of course, shouldn't be limited to mall directories or store entrances. While the body text of brochures, leaflets, flyers, business letters and such should aim for effortless clarity, the name of the business — reproduced on those same items, plus business cards, bumper stickers, coffee mugs and other common corporate paraphernalia — should exhibit some creativity.

Keep in mind, too, that most of the printed world is still black and white. A recent flyer, announcing the retirement of a coworker, was printed in six different colors, with six different sizes of type. Six different colors and sizes of Courier.

Wouldn't it have been easier to read (and photocopied much better) to write it in a careful mix of serif and sans-serif fonts?

Further reading

Almost every issue of the *Washington Apple Pi Journal* lists the programs, hardware and fonts used to construct the *Journal*, usually on page 3. Flip back a few pages and take a look. Then see if you can figure out why we made these choices. Then tell us; we crave reassurance.

An introduction to fonts was published in the *Journal* during the 1900s, "Fonts: An Overview," *Washington Apple Pi Journal*, pp. 29-32, May/June 1999. This covers such topics as the differences between serif, sans-serif, calligraphic and other kinds of fonts.

If you are a new Macintosh user, or a veteran Macintosh user, or you have never, ever used a Macintosh, take a look at Robin Williams' *The Little Mac Book*. Now in its sixth edition, this is the best computer book yet written: it presents a mass of technical information in a non-technical, non-threatening fashion, with subtle, splendid illustrations. There is an entire chapter devoted to fonts that, quite frankly, doesn't touch on any of the topics covered here. But she does tell you how your Mac uses fonts, as well as thousands of other useful things.

Most personal computer users

✪ Decorator ✂ Punctuation ☎
VAG Rounded Bold, Zapf Dingbats

PUPIL PIERCING
WHEN YOU'VE PUNCTURED EVERYTHING ELSE
ITC Anna

SQUAT:
The Short and Fat Store
Madrone

FRUITCAKE DISPOSAL
WE DON'T ASK, NEITHER SHOULD YOU
Peignot Demi

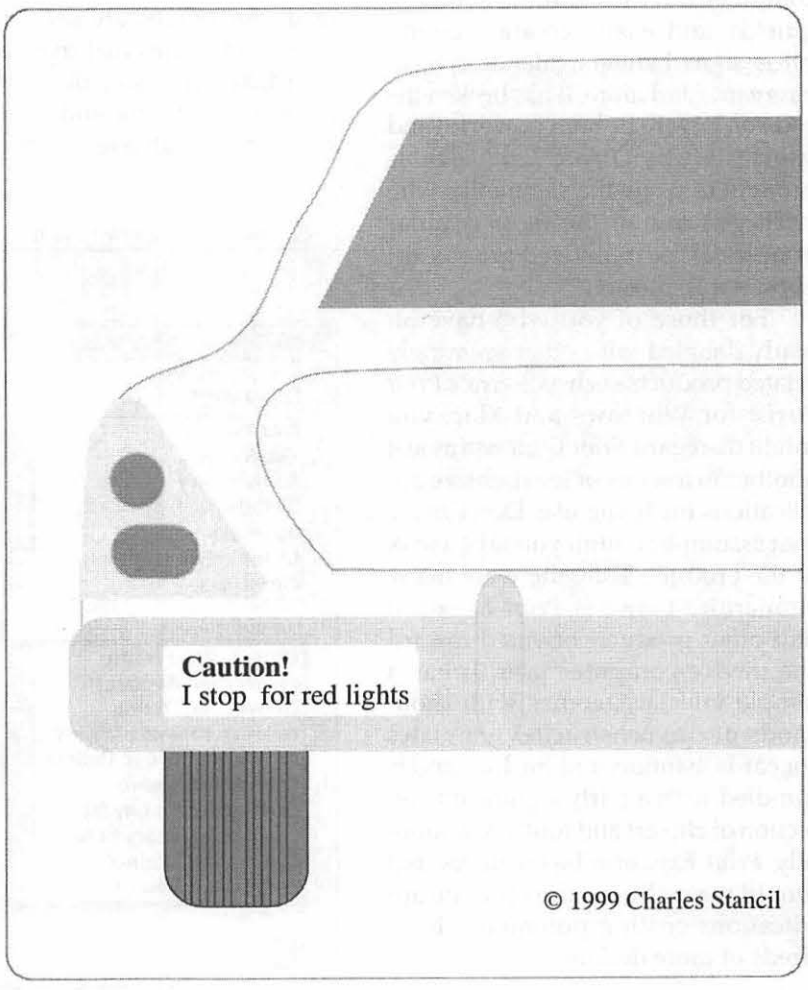
CONTAINER in a Box
Russell Square

don't really understand how to even type on a modern computer, much less a Macintosh. Common punctuation, tabs, margins and other essentials baffle them (and it shows). Robin Williams addressed these concerns in her first book, *The Macintosh is not a typewriter*, an excellent, slender volume just as valuable today as it was a decade ago.

If you've mastered the lessons of these books, you are ready for some heavy-duty typography, which Robin Williams covers in two more books, *How to Boss Your Fonts Around*, 2nd ed., and *The Non-Designer's Type Book*. The first discusses font management on the Macintosh: what fonts are, how they work, how they are stored. The second discusses typography as an aesthetic as well as an applied art form, with outstanding examples of how to look sharp using nothing more than tasteful typography (and talent).

You might ask: haven't other people written books about fonts and typography? Certainly. They just aren't as good. ■

Robin Williams, *The Little Mac Book*, 6th ed., Peachpit Press, 1999, 445 pages, $19.95
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



Nova Development's *Print Explosion*

By Steven Kiepe

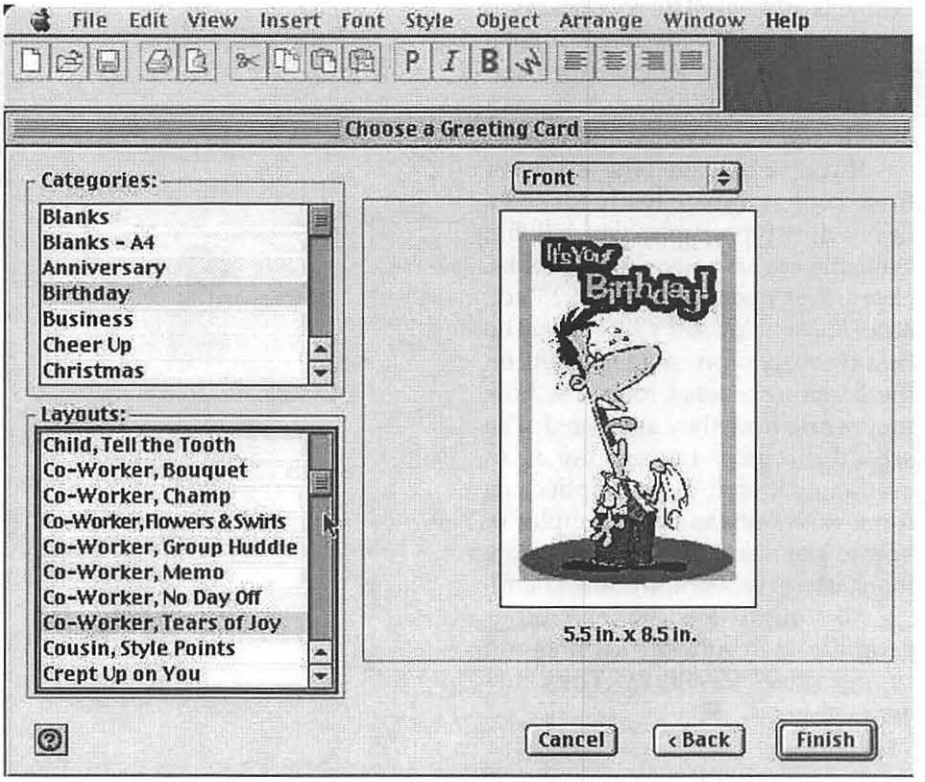
EVERY ONCE in a very great while a program comes along that is so feature filled, solidly written and fairly priced that you have to question why other software vendors can't compete. Nova Development's home craft-graphic program *Print Explosion* is one such application. Designed to empower computer novices with the ability to quickly and easily create greeting cards, signs, banners, calendars, business cards and more, it has broken the code on how to be both powerful and user friendly. *Print Explosion* is brought to us by the same folks who package some of the most popular bundles of computerized graphic art clips, Art Explosion.

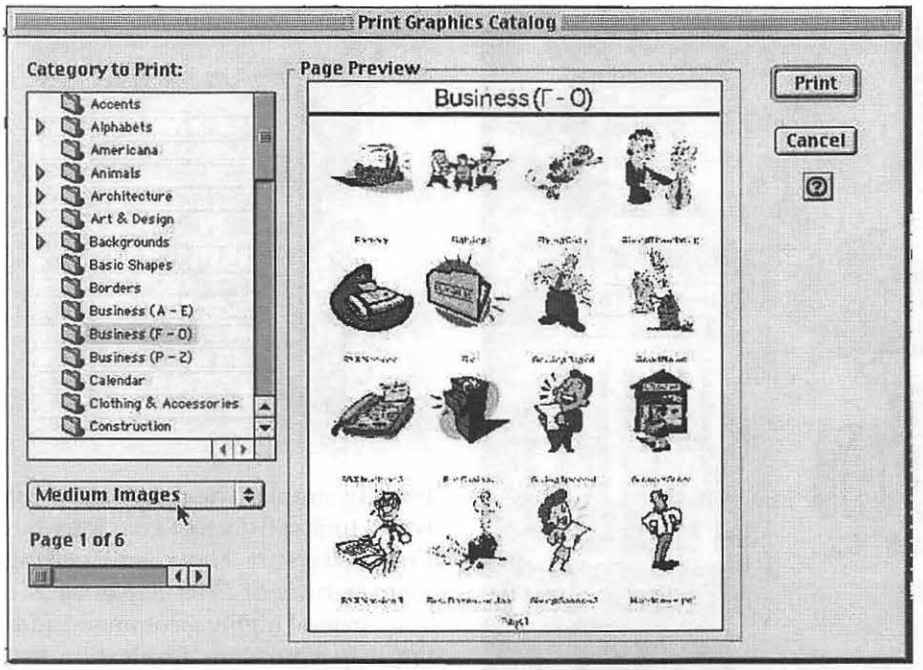
For those of you who have already dabbled with other seemingly related products such as Sierra's *Print Artist* for Windows and Mac, you might disregard *Print Explosion* as just another in a series of inexpensive applications for home use. Don't make that assumption until you take a look at the product. True, there are many similarities between *Print Explosion* and other products oriented toward the novice computer user. It has a simple interface, comes with thousands of pre-constructed templates for cards, banners and the like, and is bundled with a fairly significant collection of clip art and fonts. Additionally, *Print Explosion* has features that would normally require separate applications costing potentially hundreds of more dollars.

The first step in creating a new masterpiece is the project type selection. The user can pick from general categories including cards, signs and posters, banners, certificates, calendars, labels, letterhead, invitations and many more. Once a general category is chosen, another menu opens up with a host of pre-built templates, ready for immediate use. Nova Development states that there are more than 4,000 professionally crafted templates ready to use and after having scrolled through a few of the categories, I believe it. The clip art and fonts are already pre-selected and they do a pretty fair job, ranging from comic to more professional work.

If the pre-built templates aren't quite what you're looking for, it is very easy to add clip art from an included selection of over 50,000 graphics clips, 1,200 photos and 1,000 fine art images. The included graphic arts clips are in fully scalable proprietary vector format, currently exclusive to *Print Explosion*. The photos and fine art images are in more familiar raster formats. Of course, the program also allows the import of your own TIFF, EPS, PICT, GIF and JPEG graphics. Even more impressive is the built in support for Twain-compliant scanners.

The *Print Explosion* clip art selection is fairly typical of what you find on the market; a significant percentage of it is made up of caricatures, usually humorous, with a smaller percentage more "professional" in nature. The included photographs and fine art images are generally landscapes and plants with a handful of





abstract art works thrown in for good measure.

All of the included clip art is catalogued in a 500 page softbound volume that averages 132 preview grayscale image clips per page. Also displayed in the manual is a representation of the 500 true type fonts included with the package. I counted closer to 140 type families, which then grow to 500 font styles when you add in font weighting and style modifications to each typeface. Regardless, the selection is excellent and there are more than enough fonts to meet the needs of all but the most fanatical typesetters.

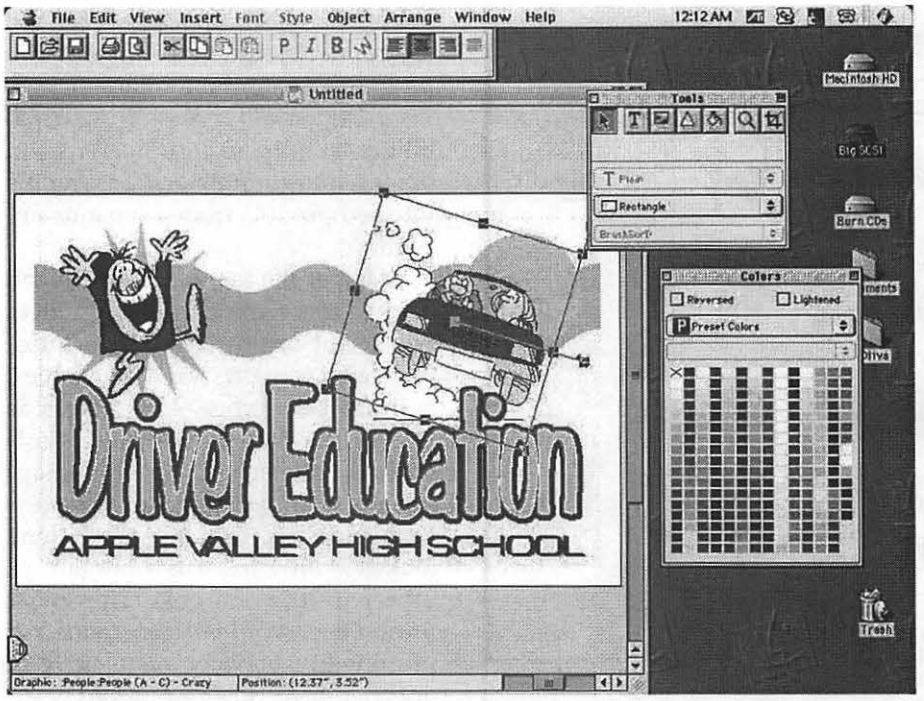
A very nice feature of the program is the ability to create special text shape effects, similar to that found in programs like Adobe's *Type Twister*. *Print Explosion*'s type shifting capabilities far surpass *Type Twister's* and don't require cutting and pasting the finished product from a separate application.

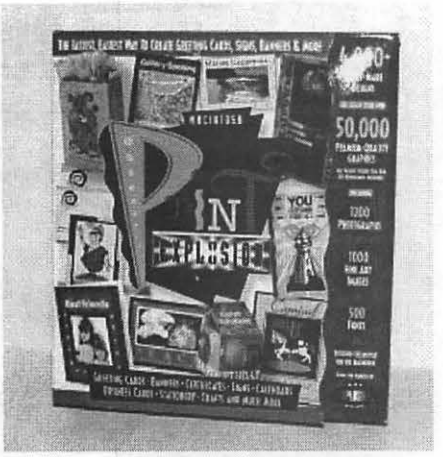
One of the features I most liked about *Print Explosion* is its built in postscript interpreter which automatically converts vector graphics, both it's own proprietary images as well as standard encapsulated postscript (EPS) images to raster (bitmap) images when printing to non-postscript printers. This capability alone makes *Print Explosion* a bargain as otherwise the non-postscript inkjet printer user would be constrained to printing EPS previews on (usually 72 dots per inch – low resolution) or investing in conversion products like Art Age's *EPS-to-PICT* or Birmy's *PowerRIP*. *Print Explosion* enables vector clip art to be placed, scaled, manipulated and then printed at the maximum resolution of the output device without loss of print quality. It really produces beautiful output on today's very affordable ink-jet printers.

Print Explosion was designed for the *Macintosh*. It makes extensive use of the AppleGuide help system which means it will lead you step by step through whatever actions are required to get the results you desire.

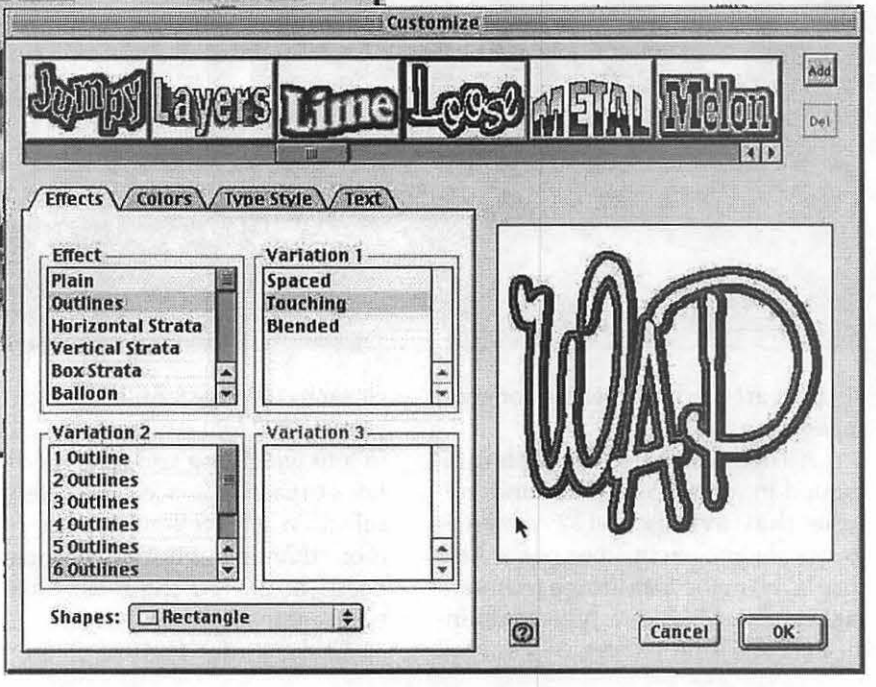
ust when you think there couldn't be any more, well hang on a bit longer. *Print Explosion* has a feature which will print catalogs of your favorite clip art (both Nova's and your own collection) and it will also print catalogs of your installed fonts. This feature just made two more utilities unnecessary.

I've had the opportunity to run *Print Explosion* through the wringer and I couldn't break it. It never bombed, crashed, froze up or even slowed down. The screen renderings are fast, conversion to print very quick, and installation and use excep-





tionally simple. The program comes with a total satisfaction guarantee but I'm pretty sure Nova isn't getting many returned! *Print Explosion* is a winner and I highly recommend adding it to your core application list, even if you own high-end applications such as *PageMaker* or *Quark*, *PhotoShop* and *Illustrator*. Nova is currently offering a user group discount price of $39.95, a $10 discount. To get your copy, call customer service at 1-800-395-NOVA and mention code 636. You will not be disappointed. ■



Extensis Portfolio and CD-ROMs

Keeping Your Digital Images Organized

© By Dennis R. Dimick

PERHAPS YOU have a new digital camera, and you've been shooting nearly anything that moves. You've accumulated hundreds of digital picture files on your hard drive. Friends and relatives enjoy receiving your e-mailed picture files, and perhaps some digital images grace your web site.

Alas, you're having a hard time remembering where you put the files for those great digital pictures of last summer's camping trip, and your computer hard drive that used to seem so big is nearly jammed full with picture files.

If this description fits you, it might be time to consider your own "digital asset management" strategy: an image-cataloging program and a drive that lets you create your own CD-ROMs.

One cataloging program I've found useful and easy to use is Portfolio 4.1 from Extensis Software of Portland, Oregon. A graphics database program, Portfolio can help you organize, manage, and access your burgeoning graphics file collection.

A CD-R or CD-RW drive combined with disk writing software such as Adaptec's Toast will let you create your own CD-ROMs to archive and backup picture files and other files. (CD-Recordable is an older format that writes once to a blank CD. CD-RW lets you rewrite data to CD-ROM format compatible optical disks.)

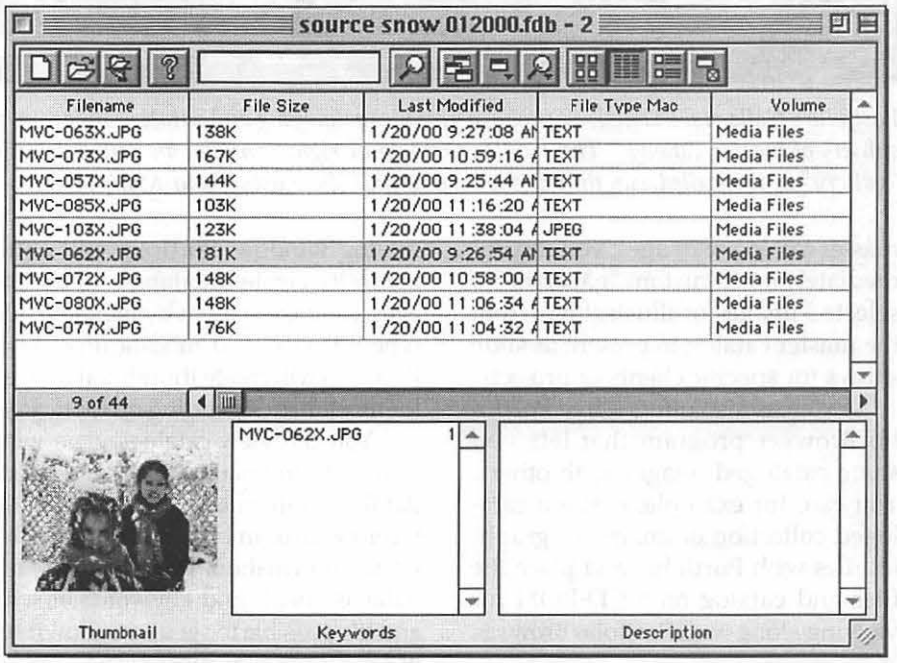
If you combine Portfolio's graphics cataloging and database prowess with the archiving role of a CD-R or CD-RW drive, you've taken a big step towards taking control of an ever-expanding image and graphics file collection.

From Fetch to Portfolio

Portfolio originally appeared in 1991 as Aldus Fetch from the Seattle firm that created PageMaker. About four years ago Extensis Software bought Fetch from Adobe Systems after Adobe bought Aldus. Extensis began an aggressive program of upgrading and strengthening this single-user image cataloger. Portfolio has now become a versatile cross-platform client-server suite of tools for managing graphics files.

Despite its strength as an enterprise tool, Portfolio also retains simplicity as a stand-alone program for single users. The current version 4.1 has become quite popular for organizing photographs, clip art, QuarkXpress documents, QuickTime movies, sounds and other digital graphics files.

A new slide show feature in 4.1 allows you to sequence and rearrange the order of photos in a catalog on the fly for presentation as an on-screen slide show. Further, once you create a



A Graphics Database: Portfolio provides extensive database and search tools for your graphics catalogs. You can create database field types to your liking, and you can also search for images based on a specific quality to automatically create custom galleries.

Portfolio's Galleries: Extensis Portfolio, a graphics cataloging and database program, allows you to create subsets of master catalogs. The smaller window at right contains an edited selection of images. This "gallery" as it is called, can then be shown as a slide show using your Mac's screen or a digital projector.

master catalog of images, you can immediately build custom "galleries" of selected images or illustrations from the master catalog to present as slide shows for specific clients or projects.

Extensis also offers a free Portfolio Browser program that lets you share cataloged images with others. You can, for example, create a cataloged collection of images or graphics files with Portfolio, and place the files and catalog on a CD-ROM for viewing along with Portfolio Browser.

Creating Your Image Catalogs

To create a catalog, drag a folder of graphics files into an open Portfolio catalog window. Portfolio will automatically create a database of all images, cataloging them by filename, file type, file size, and modification date. Portfolio will create thumbnail images for most files depending on their type.

You can view catalogs via a window of thumbnail images, as a list of database information, or as a single record with thumbnail and relevant database information. You can customize database fields and keywords at will, and it's possible to set up your own set of keywords that most closely reflect your personal work or preferences.

This only begins to describe what Portfolio can do. If you have QuarkXPress documents with images in them you can use AppleScript to have Portfolio automatically catalog all image files in the Xpress documents. Portfolio will create catalogs that you can make available for viewing from web servers via any Web browser.

Apple's drag-and-drop technology plays a central role in Portfolio's utility. Besides catalog creation, you can drag images from Portfolio catalogs for placement into QuarkXpress and PageMaker documents. You can drag images from Portfolio catalogs to create custom folders of images for later processing. You can drag images from Portfolio catalogs onto an alias for an imaging program like Photoshop, and all selected source images will open for editing.

A New Portfolio's Coming

As I was writing in early February, Extensis announced a version 5.0 of Portfolio for release this spring. Portfolio 5 will allow cataloging and viewing of all pages in multiple-page PowerPoint, QuarkXpress and Adobe Acrobat documents. You'll be able to search for images across multiple Portfolio catalogs, even those catalogs located on web sites. Portfolio 5 also will allow you to take image catalogs and save them to QuickTime movie format. You can then, for example, add a sound track with voice-over narration or music to your slide shows.

Stay on the Path

Despite Portfolio's benefits, keep in mind it requires persistent logical pathnames for catalogs. If you build a catalog on a hard drive volume named "My Pictures", and then create a CD-ROM with that same Portfolio catalog and the source images on it, be sure to name the CD-ROM "My Pictures." If you don't, each time you try to access the images represented in the catalog, Portfolio will ask you to insert the "My Pictures" source disk.

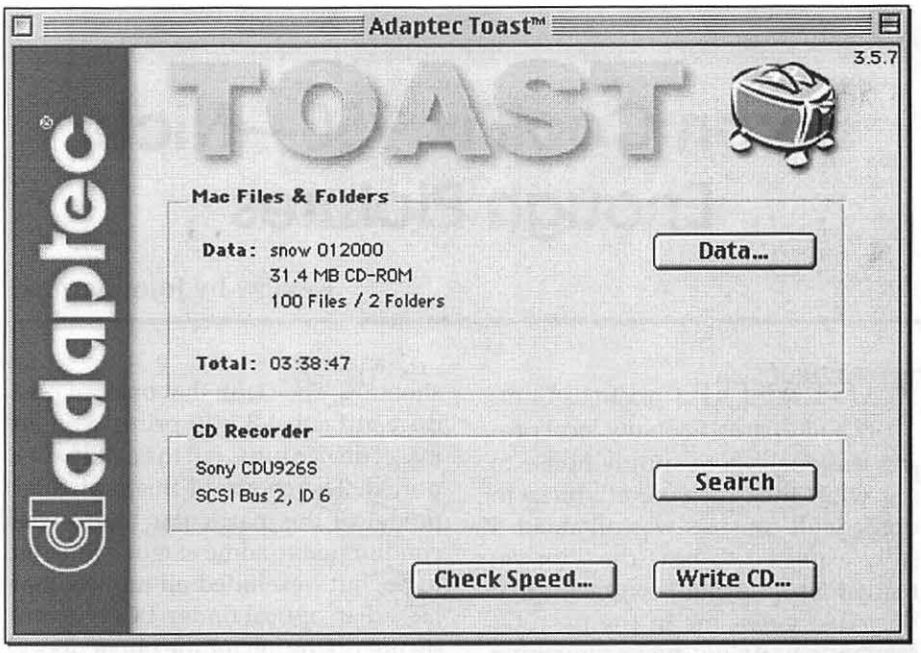
There are benefits to this. You can also save your images to a variety of CD-ROMs or other disks and create a Portfolio catalog file of those disks where only the catalog file resides on your hard drive. If there's an image you seek later, Portfolio will prompt you to insert the source disk by name to retrieve the source image.

About CD-R and CD-RW

These optical disks are becoming quite popular as an archival medium. If you are a photographer, graphic designer, or anyone who create a lot of graphics files, these CD-R and CD-RW drives that create CD-ROMs are nearly mandatory as a way to manage and store your image files. Beyond this, these drives are an ideal backup medium for any type of data.

Disks hold anywhere from 650 to 700 MB of data each, and CD-R and CD-RW drives are now offered by many vendors. Just a year or so ago I got blank stares from a Comp USA store clerk when I sought to buy blank CD-R disks, but they are available at most all computer and office supply stores today. Recently I saw an office supply store selling CD-R blanks for 69 cents each when bought in batches of 100.

If you seek to buy a drive, check the various Mac mail order catalogs or the web site (www.apstech.com) of long-time Mac vendor APS Technologies of Kansas City. It's always possible to get a decent quality CD-R or CD-RW drive in the $300 to $350 range, and all come bundled with disk writing software. My favorite is an outstanding disk writing program called Toast, now published by Adaptec.



Toasting Data: If you combine Extensis Portfolio with a CD-R or CD-RW drive and Adaptec's Toast, you can keep your expanding image collections under control. Toast is an easy to use disk writing software for creating your own CD-ROMs.

Like Portfolio, Toast lets you "drag and drop" data files into the program window and the software does the rest when creating your archival CD-ROMs. Vendors now sell CD-R and CD-RW drives in SCSI, USB and even FireWire models.

The Key is Keeping Track

Whether you have a digital camera, a film scanner, or you're a graphic designer who creates projects from image editing or page layout programs, you're an obvious candidate for a program like Extensis Portfolio. You don't have to buy to try, as a fully functional 30-day demo version of Portfolio is available from Extensis' website at www.extensis.com.

Combine this powerful cataloging program with Adaptec's Toast and a CD-R or CD-RW drive and you'll have in place the basic tools to organize and archive your own library of graphics files. ■

Pi member Dennis Dimick has an idea how to organize his digital picture files, but he's still trying to find the time and energy to organize thousands of boxes of Kodachrome slides stored in his basement. He can be reached via email: *ddimick@aol.com*.

Extensis Portfolio 4.1
Mac OS 7.5.3 - 9.0
Power PC Required
6MB Application RAM Needed
Street Price About $190
Extensis Corporation
1800 SW First Avenue
Portland, Oregon 97201
Phone 503-274-2020
Web: www.extensis.com

Adaptec Toast
Usually Bundled with CD-R and CD-RW Drives
Available Separately for $99 from www.adaptec.com
691 South Milpitas Blvd.
Milpitas, CA 95035
Phone 408-945-8600

Nikon CoolPix 950—Nice Enough Pictures

Review by John Barnes

JUST AFTER Christmas I simply had to drop in on my local professional photo supply house to see what the "megapixel" buzz in digital still cameras was all about. I fully expected to hear the "not yet ready for prime time" comments that they had given me in the past. Or maybe they would have something good but I would find the price too high. In any case I was skeptical and I thought I had conditioned myself not to leap at the new technology.

Well, I wound up subjecting my credit card to another bloodletting on the altar of bleeding edge technology.

My purchase of a Nikon CoolPix 950 camera at a competitive price has put a new spark into my home snap shooting. The claim that one can produce attractive 8 x 10 prints with an ink jet device turns out to be fully supported. The choice of this particular model of this particular brand was conditioned to some extent by media hype, but I excluded all models that lacked an optical finder. LCD finders do not do the job for me out of doors. The idea of additional optical flexibility through interchangeable lenses has some allure. The CoolPix 950 is priced at the high end of its class, but not outrageously so.

It takes only a little imagination to find innumerable uses for one of these cameras. There are plenty of choices for those who want to shop feature sets and pricing. However, do not rely on the magazine articles, and do be sure to get a look at the widest possible range of products. This is an extremely competitive business.

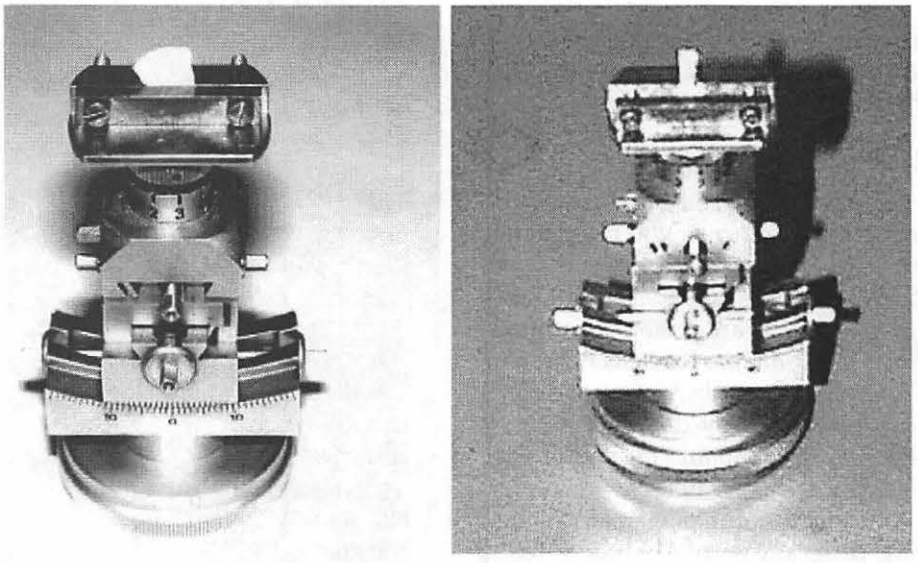


Figure 1 - The little widget shown here is part of a materials science experiment. The left view was taken with my Nikon CoolPix 950, the one on the right with a Kodak DC50. Note the improved sharpness and tonal range in the left hand image.

Things I like

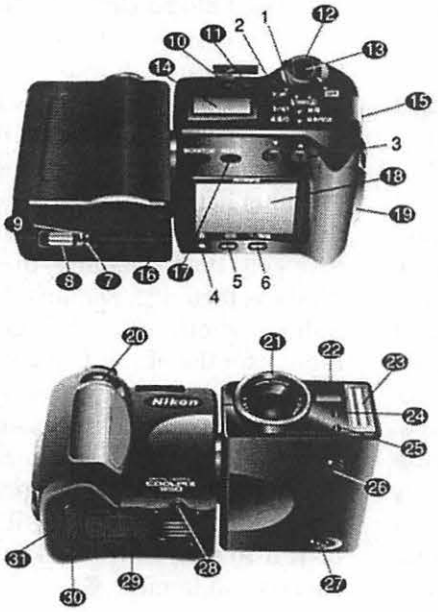
I was not disappointed when I started playing with the thing after getting it home.

The first thing I like about this gadget is its nice output. Figure 1 is a side-by side comparison of a picture taken with the Nikon and one taken with a Kodak DC50. The latter camera is representative of the previous generation of digital cameras. The Pi web site offers a color version of this illustration that probably has a lot more detail.

Secondly, the camera has every feature that one would expect in a high-end 35 mm SLR camera. This flexibility in adapting to different situations is very important to me. The little lens cap with its built-in attachment point is kind of cute, too. I used a cable tie to secure it around the camera strap.

The next thing I like is the ease with which the photo files can be handled. The proprietary photo formats that had to be converted to more general formats have been replaced by on-the-fly compression to files stored on flash memory. When it comes time to work with the images the computer treats the flash memory just like a removable disk drive. Just take the little flash memory card out of the camera, slip it into a suitable adapter, plug the package into the PCMCIA slot, and drag and drop. Users who lack a PCMCIA slot can use Nikon-supplied software to achieve the same effect through a serial connection to the camera. I have not yet tried this approach because I am concerned about battery life.

This simplicity in handling images is a terrific boon for newsletter editors, Web authors, parents, and other animal lovers. These folks can shoot their favorite subjects until the



7 Autofocus lamp
8 Viewfinder eyepiece
9 Flash-ready lamp
10 Video cable connector
11 Power jack for optional AC adapter
12 Mode dial
13 Shutter-release button
14 Control panel
15 Serial cable connector
16 MONITOR button (press once to hide settings, press again to turn monitor off, press a third time to turn monitor on)
17 MENU button
18 LCD monitor
19 Eyelet for camera strap
20 Command dial
21 Lens
22 Viewfinder
23 Built-in flash
24 Red-eye reduction lamp
25 Photocell
26 Connector for external flash
27 Diopter adjustment dial
28 Tripod socket
29 CompactFlash card slot
30 Battery chamber latch
31 Battery chamber cover

Figure 2 - Features and controls for the Nikon CoolPix 950.

cows come home and get immediate gratification that beats one hour photo stores all hollow for cost and convenience.

Party animals can upload slide shows and simply feed them to a TV set through the built-in video output port. Since the video display is live to the LCD screen it is possible to use a TV set as a viewfinder. People who make extensive use of these features will need to purchase an external power supply. It looks like the Nikon folks have cleverly engineered things so that their power supply is the only one to use.

Manuals and software are supplied as Acrobat Reader files on a CD-ROM. I also scanned in the "QuickStart" card so that I would not lose it. The documentation is clear and readable. However, as will be noted below, the system is complicated enough so that the user will use the manuals early and often. I found that some features were covered in yet a third document, a 30 page "Pocket Guide" I decided to scan this in as well, just so that I would not lose it.

The chief enabling technology of the megapixel revolution as seen in the CoolPix and others of its ilk is JPEG compression. The CoolPix offers three pixel counts, each with three different compression ratios, for a total of nine resolutions which allow from 8 to 200 images on an 8 MB flash memory card. An uncompressed TIFF Mode that gives a single frame on an 8 MB memory card is also available. Higher capacity flash memory cards run around $3 per megabyte and new models are appearing all the time.

I'll spare you the gory details and say merely that a full picture of the family beagle from a 1024 x 758 frame pleased the technophobe spouse enough to elicit a pained acquiescence in the form of a statement of "You might as well keep buying your techie gadgets because it might enhance the value of our high-tech mutual funds."

Those who crave detailed specifications can find them at the Nikon USA web site.

Things I don't like

Complexity is probably a price we have to pay for power in a small package. In any case this gadget is plenty complex. Figure 2 is a scan from the quickstart card showing the various features, buttons, and controls. Figure 3 is a guide to the information that is presented on the LCD viewfinder/playback screen. Let's just say that this all takes some getting used to. Users should devote a fair amount of spare time to fiddling with the various modes and controls in order to get a better idea of what suits them. There is provision for saving customized parameter sets for particular shooting situations.

Selecting modes of operation can get pretty convoluted. Some settings are controlled from a menu that is about as hard to use as the one on a VCR. Others are selected by turning a tiny wheel while mashing down on a tiny button. I wonder who designs these things. Maybe it's the Finnish guy who uses a cell phone to buy soft drinks. Is there a market for an infrared link that would let us read the manual and call up settings from a PDA?

The delay between shots could be an annoyance for sports photographers. There are provisions for multi shot work, but it seems easier to pop in a new roll of film than to make space in memory by editing out extra shots.

The next thing I don't like is the fragmentation of the documentation. Different pieces show different things. All of this should be collected in a comprehensive reference manual. It is frustrating to find an important feature such as the multi shot capability stashed away in a document that is otherwise not very useful and that is not available in electronic form.

Battery life is a real problem. It does not take much of a session to drain 4 AA cells. I may look into rechargeables, but it may be cheaper to simply buy the batteries in bulk.

These costs will partly reduce the savings from not having to develop and digitize film. Will I need an AC adapter? I'm put off by Nikon's price, but I may have to bite the bullet. Judicious use of the "Monitor" button to turn off the LCD display ameliorates things a little bit. The flash uses quite a lot of juice as well.

The price of converter lenses seems rather high. I see no immediate need for them, but it is nice to know that they are there if I need them. The optical built-in zoom range supposedly corresponds to a 35 to 115 mm zoom lens on a 35 mm SLR. I might be happier with 28 to 100.

The built-in flash is kind of weeny. There is provision for synching to beefier flash units. Most of these are at least as bulky as the CoolPix itself. If one wants to light up the scene one needs a place to store all of those joules.

I wonder about the funky twist-to-shoot design. This certainly decreases the required storage space. It also gives added flexibility for some kinds of shooting. However, one does wonder if the joint between the two parts of the camera could be a weak point.

Will this be your only camera?

The last time my wife and I traveled abroad we shot twenty 20 exposure rolls of 35 mm film, for a total of about 400 frames. Perhaps a third of these were "keepers." A single 64 MB flash memory card would, therefore, hold all of our good snapshots at a resolution that is adequate for our purposes.

The cost, with batteries, would be comparable to what we spent on developing, printing, and digitizing those 20 rolls. Add in the fact that the CoolPix 950 is a lot less bulky than a standard 35 mm SLR and the idea of using such a camera as one's main photo device becomes quite attractive.

The biggest single drawback to this is the lack of a backup storage medium for the pictures. A theft or accident would result in the loss of all of our snapshots, not just those that happen to be in the camera or the gadget bag. With film the loss is limited to a day or two's shooting at most (unless our suitcases get totally lost).

Paper photo albums remain easier to work with than the digital ones, although viewing applications are improving rapidly. On the other hand, the ability to crop digital photos and compensate for some exposure defects is a huge plus. Consumables costs for digital printing are not negligible, but it certainly is a lot cheaper to make a 5 x 7 or 8 x 10 print that way. Modern photo-quality papers help a lot in this regard.

The bottom line is that I will probably use the Nikon for most shooting in those places where I have easy access to my laptop computer. On foreign trips of any consequence I will take along the film camera, either as a secondary camera or as the primary when I leave my laptop at home.

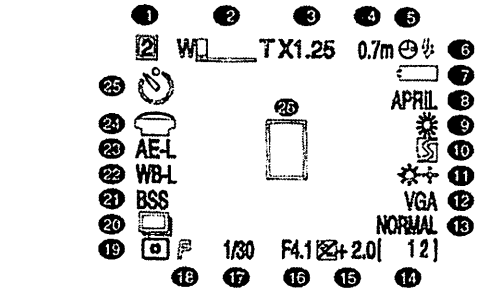
In my youth I spent a lot of time in darkrooms with smelly chemicals, bulky machines, and delicate media to create a very modest output of mostly undistinguished photographs. The newer digital technologies give me better prints and better creative control over the images that I make. I cannot yet rival Ansel Adams with big, dramatic, needle sharp prints, but I can learn a lot with the tools I have.

Will I Bleed Less if I wait?

Most of us find it galling to learn that our latest high tech toy became obsolete soon after we unpacked it. I suspect that this is doubly the case with digital cameras, still or video. On the other hand one needs to get a few things done. The answer is to learn to love your purchases until they really do show their age. Perhaps if you act quickly enough you can get some money for the old stuff at a Pi sale.

I have not attempted to spell out all of the ways that this camera could be used. I know that I personally have lots of projects that will benefit from this camera, and I think it will be a lot of fun to share my work with my friends and family. ■

Icons in the LCD monitor (A-REC/M-REC)



1. User set number
2. Zoom indicator
3. Digital zoom
4. Focus mode/manual focus distance
5. "Date not set" indicator
6. Flash mode
7. Battery indicator
8. Current folder
9. White balance program
10. Sensitivity
11. Brightness/contrast
12. Image size
13. Image quality
14. Number of exposures remaining
15. Exposure compensation
16. Aperture (f number)
17. Shutter speed
18. Exposure mode
19. Metering mode
20. Multi-shot mode
21. Best-shot mode
22. White-balance lock
23. Auto-exposure lock
24. Lens converter settings
25. Self timer
26. Auto-exposure target (spot metering)

Figure 3 - Information presented on the monitor display. Nearly every conceivable tidbit about the exposure can be read out here. The data is superimposed on the image in playback mode. It can be suppressed by a single push of the "monitor" button.

A Pi Labs Special Report

That WOW Thing You Do

by Jerry Kindall

From Simple Sound to Enveloping Magic

SRS LABS [1] fascinates us. Not as an investment, mind you—a look at the company's stock history [2] shows a steady downward trend since the initial public offering about three years ago, saved only by a recent upturn. No, we like SRS Labs because the company's technology for enhancing stereo audio is way cool - that is, it *works*.

When we first heard of SRS, well over five years ago, this stereo-enhancing coolness belonged to Hughes Aircraft. Arnold Klayman, a Hughes engineers, had invented technology that employed what acoustic wonks call "head-related transfer functions" (HRTFs) to improve audio reproduction. The basic idea is that the position of your ears on your head and the shape of your outer ear (known as the *pinna*) have a tremendous impact on the way your brain determines the spatial location of sound – yet the way sound is ordinarily recorded and reproduced takes none of this into account (except for special "binaural" recordings, which are created with microphones in the ears of a dummy head - we swear we are not making this up – and which produce a startling sense of realism when played back over headphones, but do not work well with regular speakers.) Using HRTFs, Klayman invented a gadget accounting for many of these effects, albeit approximately, when playing back normal stereo audio material through ordinary speakers.

All it took was one listen for the brass at Hughes (the executives, not the section in the company orchestra) to realize they had something really interesting on their hands. In addition to the jaw-dropping 3D stereo effect Klayman's gizmo provided, they discovered it also made speaker placement in a room almost irrelevant – you could hear a decent stereo image no matter regardless of your location or the speakers' location. Hughes quickly gave Klayman a lab and a staff, patented the technology, christened it the "Sound Retrieval System," and released a little box with the technology that you could add to any hi-fi system. It created quite a stir in audiophile circles - when you could find it, that is. As it turns out, Hughes is pretty good at making planes but lousy at marketing hi-fi equipment. Although the company intended to use the technology in their planes' audio systems, they never did. The company eventually lost interest in Klayman's work and went back to just making planes.

SRS Labs is basically Klayman and a few investors who banded together to wrest the technology patents from Hughes and actually *do* something with them. At first, SRS was to be a technology development company that made money through licensing. One of the company's investors founded a separate company called NuReality to manufacture SRS products, and many well-known electronics companies - including Sony, Pioneer, and Apple - did in fact license the technology. Meanwhile, the company kept inventing new ways to use Klayman's basic idea, patenting them, and licensing them like mad. Focus, for automotive audio, compensates for door placement of speakers by "raising" the soundstage psychoacoustically. *TruSurround* offers Dolby Pro Logic surround decoding for home theater systems using only two speakers - we've heard it, and yes, it really does sound like sounds are coming from behind you. *SRS Headphone* adjusts the sound you get when listening through headphones and "moves" it outside your head. *Circle Surround* is a surround encoding technology that encodes five discrete audio channels into one, similar in concept to Dolby's technologies. *VIP* specially processes voice signals to improve their intelligibility under poor conditions. *TruBass* enhances the presence of bass without making it sound overly "boomy." There's no doubt the company has been busy finding acoustical problems that can be solved by SRS. They even filed a patent [3] last week on Internet "audio broadcasting technologies" employing their technology.

Other companies have explored the world of psychoacoustics, too, including Spatializer, QSound, and Arboretum. The first two license technology to professional and consumer electronics manufacturers (Apple licensed Spatializer technology some time ago for use in Game Sprockets) and the latter makes software such as the free Realizer plug-in for SoundJam MP.

It goes without saying that most computer speakers are pretty crapulent, even the US$200-range ones. But while their frequency response is usually bad, they have an advantage over more traditional listening environments when it comes to stereo imaging: they're used for what audio pros refer to as "near-field monitoring." The speakers are positioned only a few feet from the listener, the listener is usually equidistant from both speakers ("in the sweet spot"), and the

listening volume is low enough that reflections from rear and side walls don't muddy the sound. With MP3 gaining in popularity, people are listening to music on computers more than ever before - we won't even mention games, and they can really benefit from enhanced stereo.

In short, the time was ripe for someone to address the inherent limitations of computer audio with a solution targeted specifically toward typical listening situations: lousy speakers and near-field listening. NuReality closed up shop some time ago, so SRS Labs stepped up to the plate with the aptly-named WOW Thing Box. "WOW Thing" is a free plug-in for WinAmp (a Windows MP3 player); "WOW Thing Box" is a hardware device that works with any computer with miniature stereo jack, including most Macs. If your Mac has line-level RCA outputs, you'll need a little Radio Shack- style adapter. The US$30 (plus US$8 shipping in the US) WOW Thing Box is even translucent blue, so it's obvious that SRS Labs was thinking of Apple's recent multihued creations.

It's certainly nice to be thought of, even if you have to pay nearly US$40 to get what Windows users get for free. But let's be realistic - there's no single dominant MP3 player for the Mac like there is for Windows, and of the four main ones, only SoundJam MP supports audio processing plug-ins anyway. Although Casady & Greene could probably use it as a selling point for SoundJam, they already have Realizer. So, as Mac users are used to doing, we shelled out some coin, but we get a box that works for much more than MP3 playback. We went whole hog with WOW thing - we sold a NuReality Vivid 3D Theater box, removing it from a main entertainment system and replacing it with the pocket-size NuReality Vivid 3D Plus that had been enhancing sound on the test Macintosh computer. We then installed the WOW Thing Box (which is exactly the same size and form factor as the Vivid, about six inches wide, four inches deep, and an inch thick, or 15.2cm by 10.1cm by 2.5cm) on the Mac.

And what can we say but...WOW!

Configuration is extremely simple. Start some music, engage the power, and switch the WOW processor into the circuit (there's a bypass switch). Adjust the WOW knob until you say "Wow," turn up the TruBass control until you say "Wow" again, and you're done - except for listening to all your favorite MP3s, games, and CDs through the thing for the next four hours with your mouth gaping slackly.

We used a pair of Aiwa SC-A78s powered speakers on our test machine. They're not sold as computer speakers, but they wiped the floor with all the Cambridge and Bose computer speakers we tried at twice their US$99 price. Although they're not small like a satellite-and-subwoofer system, they're certainly not desk hogs. They aren't bass-shy, either, with a surprisingly powerful little subwoofer built into the left speaker. The treble is a little weak, but a spare graphic equalizer fixed that problem. They also have QSound's Virtual Stereo processor, which convinced us to hook up the NuReality box in the first place.

> "When we first heard of SRS, well over five years ago, this stereo-enhancing coolness belonged to Hughes Aircraft. Arnold Klayman, a Hughes engineers, had invented technology that employed what acoustic wonks call 'head-related transfer functions' "...

The WOW Thing Box version of SRS is even better than the original. We assume the SRS engineers used their knowledge of the typical computer sound system to further refine the basic SRS effect. Your speakers essentially disappear; every sound you hear comes from a precise location in a semicircular soundstage that extends beyond your speakers. The effect was even more pronounced than with the Vivid, yet just as natural-sounding (though we would have doubted that possibility before we heard it). We actually did a double-take the first time an AOL Instant Message came in: it literally sounded like it was coming from the middle of the monitor, since the notification sound is monophonic. That was far more precise placement than we ever got with the Vivid, although part of that could be because the Vivid uses two knobs to control the SRS effect while the WOW Thing uses only one, making it a bit more difficult to set up to match the WOW Thing Box. We were also surprised that we had to turn down the treble a little using the equalizer; the WOW process really brings out cymbals and other high-frequency sounds.

Almost as amazing as the WOW process is TruBass, also included on the WOW Thing Box. Even though the bass on these speakers was already pretty good, the WOW Thing considerably fattened it without making it sound boomy. Again, we're not sure how this particular voodoo works, but we now hear low notes we've never heard before on these speakers - clearly, and without audible strain from the speakers. It actually sounds better to turn down the subwoofer a little and crank up the TruBass knob some more.

Quite literally every piece of source material we tried exhibited an immediate and dramatic improvement from when piped through the WOW Thing. Music - from blues to jazz to rock to classical - sounded sim-

ply fantastic. It was like replacing the speakers with much larger and more expensive ones. (The effect also works with headphones, and the WOW Thing Box has a convenient headphone jack on its side.) We fired up a couple of recent game demos to see how they worked, and we think we can safely say that gamers will be very, very pleased, especially with what TruBass does for explosion sounds. You will probably want somewhat lower WOW settings for music than for games, however.

Can you tell we're in love with this Thing? The only catch is that you need external speakers - the sound comes from your Macintosh through the WOW Thing Box and on to the speakers, and there's no way to send the sound back to your computer's internal speakers. (There's only so much those internal beasties can do, anyway, even in the new iMacs with Harman Kardon speaker enclosures.) But if you're a serious gamer or music lover, you probably already have external speakers. If you do, you want a WOW Thing Box.

As far as we're concerned, all such people should have one. It truly enhances the listening experience in a way no other product we've tried can match, and that's well worth US$40. To order, call 1+800/243-2733, or point your browser to <http://www.wowthing.com/index_netscape.html>. And be sure to tell them you use a Macintosh! ■

Lab Notes

[1] <http://www.srslabs.com/>

[2] <http://quote.yahoo.com/q?s=SRSL&d=5y>

[3] <http://www.prnewswire.com/cgi-bin/micro_stories.pl?

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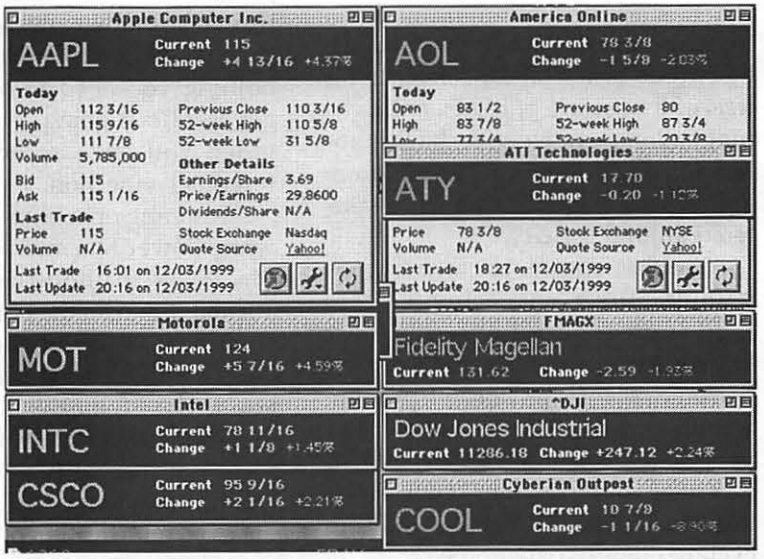
MacTicker Reviewed

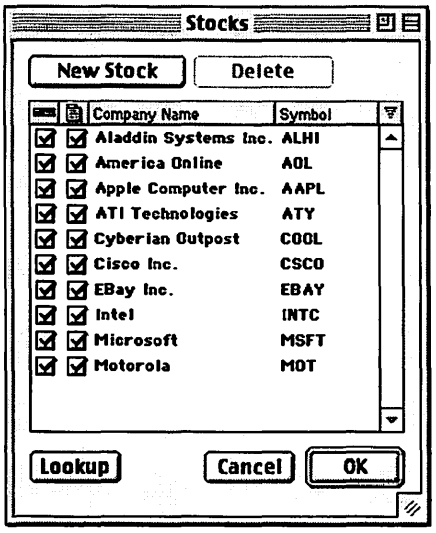
© 2000 Lawrence I. Charters

TICKER TAPE is inexorably tied to images of wealth in the United States. Old pre-Depression movies showed smug industry giants examining ticker tape as it emerged from glass-domed devices. Post-Depression movies showed anguished industry giants examining less satisfactory tapes. Ticker tape parades are granted to war heroes, as-

Tickerbanner: MacTicker's main display is the ticker itself: a banner running across the screen at a user-selectable position and speed. Depending on the size of the screen and what else you might be doing, this can be a huge distraction or, on a large screen, a very subtle reminder that there is life out there, beyond your monitor. It is also a great way to impress your coworkers, even if you don't own a dime of stock. Comments such as "Wow! It looks like a bad day for margin buyers in postindustrial extractive mutuals" will impress almost anyone, as long as they don't ask you what that is supposed to mean.



Tickerboxes: If you see something of interest on the streaming banner, double-clicking on the item will bring up an information box about that stock. These can be set to one of two sizes: a small, stark box (such as Motorola's), with the bare minimum of information, or a larger box (such as Apple's) with a wider range of detail. Note the three icons in the lower-right corner of the Apple box. Clicking on the rightmost one will immediately refresh the information displayed, if possible. Clicking on the middle box allows you to configure how information is displayed. Clicking on the leftmost box will launch your browser and take you to a Web page listing much more detailed information about the selected stock.



Configurestocks: A preference window allows you to specify what stocks MacTicker will track, and what symbol will be used for those stocks. Aladdin Systems provides a number of stocks as defaults (note the heavy technology slant), and thoughtfully provides their own lightly-traded stock as one of the options. Adding stocks is quite easy, and the Lookup option assists in looking up stock information on select Web sites.

tronauts, and victorious sports teams. Electronic ticker tapes, created with tens of thousands of lights, are a virtual hallmark of New York City, appearing on buildings in Times Square and at Times Square wannabes scattered around the city.

All that and more can be yours with *MacTicker*, an electronic ticker tape from Aladdin Systems, best known for their *Stuffit* compression package. *MacTicker* doesn't provide wealth and celebrity, of course, but you can use it without the expense of replacing all those light bulbs in the moving billboards, or constantly recycling miles of paper tape.

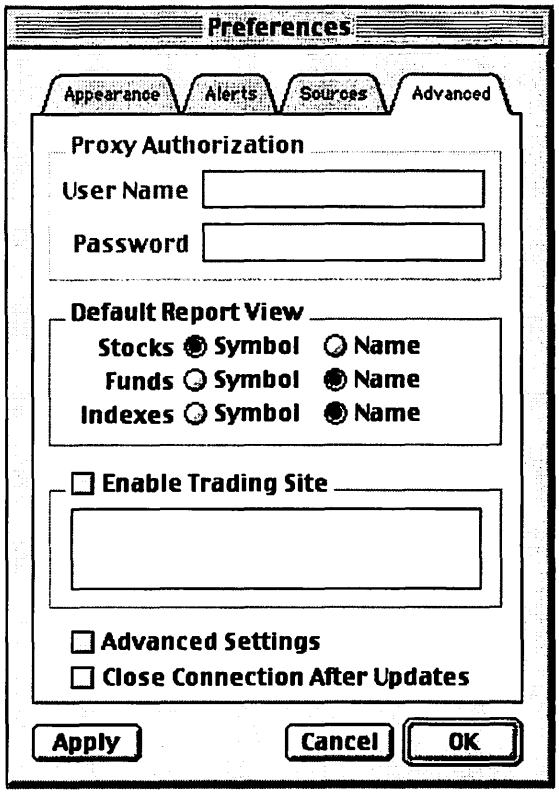
MacTicker is a small program that allows an Internet-connected Macintosh to reach out and grab slightly delayed stock market information. This information can be displayed in a number of user-customizable ways, the most useful being a scrolling electronic ticker at the top or bottom of the screen. Color coding (using user-definable colors) allows you to tell at a glance if things are going well or badly on Wall Street.

You can add or delete stocks quite easily, attending only to those stocks of personal interest. Alerts can be set to trigger if the stock changes by a user-specified amount. If you want more information about a stock, just double-click on the symbol as it scrolls by and a box with more details pops up. From here, you can even launch a Web browser and go directly to a Web page filled with almost everything you could want to know about that stock, including recent wire service postings.

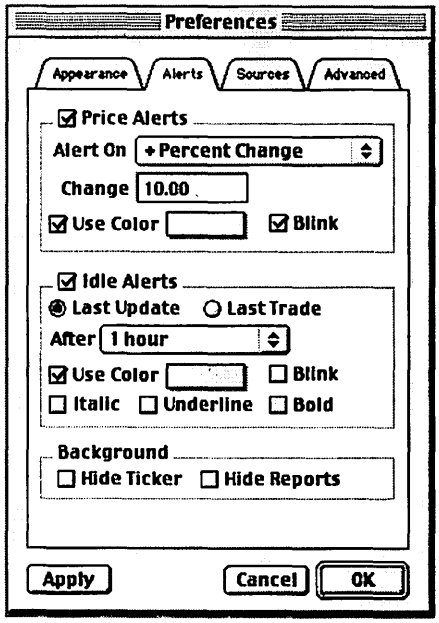
Installation is a breeze. *MacTicker* can be purchased and downloaded directly from Aladdin Systems' Web site, in a purely electronic transaction. Or (for more money) they can mail you a CD-ROM (which also includes demo versions of Aladdin's other programs). Aside from defining your own personal preferences, there is almost nothing you need to do to get *MacTicker* going — provided you have an active Internet connection.

Running on a blue-and-white Power Macintosh G3, *MacTicker* is unobtrusive. Tucked down on the bottom edge of a 17-inch monitor, it was out of sight and out of mind. The 2.8 megabytes of memory it uses by default were not missed (this particular machine had 192 megabytes of RAM). No measurements were taken to see if it slowed the performance of the machine, mostly because it didn't interfere with anything at all so: why bother? These results would differ, of course, on a slower machine with

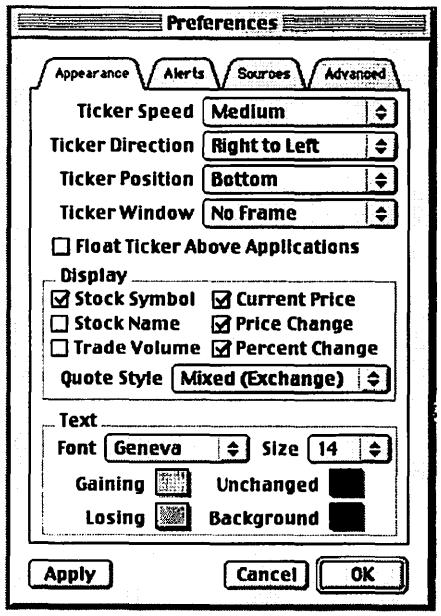
"*MacTicker* is a small program that allows an Internet-connected Macintosh to reach out and grab slightly delayed stock market information. This information can be displayed in a number of user-customizable ways, the most useful being a scrolling electronic ticker at the top or bottom of the screen. Color coding (using user-definable colors) allows you to tell at a glance if things are going well or badly on Wall Street."



Preferencesadvanced: The advanced preferences allow you to set such items as proxy authorization (for firewalls, not corporate boardroom battles), as well as specify a site for on-line trading.



Preferencesalerts: MacTickler can be set to alert you to drastic changes in stock price, with the definition of "drastic," the color of the alert, and any special formatting (blinking, bold, underline, italic) all under user control.



Preferencesappearance: There are many different options for determining how MacTicker displays on the screen. As it ships, MacTicker comes with a thoughtfully-selected series of defaults, but if you really do want it to stream across the top of your screen at breakneck screen, directly on top of anything else you are doing, displayed in garnish neon colors, yes, you can do that.

less memory and, in particular, a smaller monitor.

MacTicker, like several other recent Aladdin products, will notify you of updates as they are available. On the plus side, it always asks if you want to update, rather than going out and updating itself without your consent. On the minus side, the only update attempted during the period of review (updating from *MacTicker* 1.6 to 1.6.2) resulted in a machine lockup: after agreeing to download the update, *MacTicker* launched the browser, the browser went to Aladdin's update page, and promptly froze the machine. This exercise was repeated a couple times until eventually downloading the update "manually" by simply launching the browser (without *MacTicker's* aid) and grabbing the update.

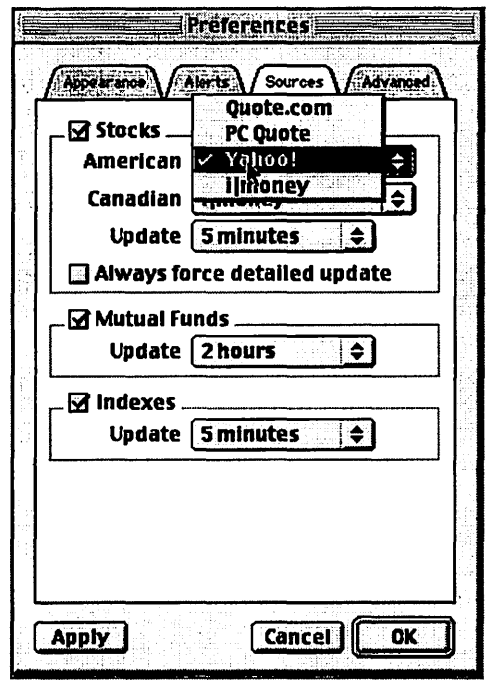
MacTicker's only real constraint is, of course, the need for an active Internet connection. While it does work just fine over a dial-up account, it works best, of course, over a full-time Internet connection. Naturally, it is also much more interesting when the stock market is actually open; on weekends and holidays, *MacTicker* doesn't do much.

Even if you are not a hard-core speculator, *MacTicker* is worth the money simply for its entertainment value. You can, for example, use it as a news source: track a couple dozen interesting stocks, wait for some interesting changes in their value, and then, with a few clicks, you can be at a Web page, discovering that the company in question won or lost a lawsuit, was purchased or is purchasing someone else, or their latest product is a success or a disaster.

As far as electronic toys go, *MacTicker* is a winner.

MacTicker, $29.95
Requirements: Power Macintosh, 4 MB of RAM (for *MacTicker*), Internet connection

Aladdin Systems
165 Westridge Dr.
Watsonville, CA 95076
(831) 761-6200
http://www.aladdinsys.com



Preferencessource: MacTicker does not, of course, create the information it displays. Instead, it goes out and periodically sucks the information off well-known Web sites. You can specify where it goes for this information. Keep in mind, however, that all stock Web site postings are deliberately delayed, so information displayed on your screen will always be 15 minutes or more out of date.

EXPRESSNET, High Speed Web Access Through Cable TV Montgomery

by Joe Belotte

HERE IS YET another article on Cable Internet. Yet another spin off from Don Essick's article in the March/April *Pi Journal*. Thanks, Don. It's hard to believe time goes so fast.

What if you want high-speed access in Bethesda, Montgomery county, etc and the DSL lines won't reach your home? If, by chance, you are a newcomer like me, and don't know the difference between PPP and Remote Access or LAN and TCP/IP, it could be a little difficult. It was for me. But with the help of my Apple Pi friends I braved not only my own complete lack of knowledge and experience but also CTVM, Cable TV Montgomery, which, incidentally does not support the Macintosh platform.

All I needed to know was the phone number of Cable TV Montgomery and the phone number for the Apple Pi bulletin board. I didn't even know what PPP or TCP/IP was, and in the process of getting on I accumulated 21 pages of notes, mostly explanations I got from Pi members over the TCS.

If I can do it anybody can! Actually, it is very simple — once you understand the instructions.

Why would you want to get on high-speed cable? Well, only you know the answer to that.

Why would you want ExpressNet? Probably, only if you live in Bethesda and can't get DSL.

But ExpressNet really isn't all that bad.

Here is what I found out from CTVM (Cable TV Montgomery):

1. They **do not** support the Macintosh.
2. They use a one-way cable set-up, uploads go out via modem and downloads come in on cable.
3. There is software that can handle that on my Mac, but —
4. They **do not** support the Macintosh.
5. If I could figure out how to get on myself they will be glad to take my money,
6. They would give me a one month trial and return my month's charge if I couldn't make it work.
7. The cost is $49.00/mo.
8. They **do not** support Macintosh.

If you are a novice like I am you will need a little help. This article should provide it. To me, PPP was something I used to do in the snow when I was a kid. Frankly, I still don't know what it means, but I do know how to use it — now.

I got my help from friends on the Pi TCS, a bit at a time. In the beginning I didn't even know what to ask. When I got answers I didn't know what they were talking about. So, there was a lot of back and forth on it. As a result I promised that I would put it all together for any one else who might like to follow.

Here is what you do

1. Call CTVM and sign up for ExpressNet service. There will be no installation charge (and no installation). And they will give you the modem free. (Of course you have to return it some day.) When you sign up you will agree on a screen name and password. They are case sensitive.

When talking with the ExpressNet representative, be very sure he or she writes down the same screen name and password you do, exactly. They botched my password and it took quite a while to figure out what the problem was.

They will also give you several sheets of instructions telling you how to set up — provided you are using Windows 95 or 98. Remember, they do not support Macs. Do not toss the instructions. Although they are not for you, you will find several important clues there.

2. With your current ISP go to **http://www.sustworks.com** and get an application called *IPNetRouter*. It is approximately $89. You will use this, along with Remote Access (PPP) and TCP/IP to handle your connections. *IPNetRouter* is a piece of software that does a whole lot of things. For one, it gets your Mac to access the internet via both modem and cable simultaneously.

3. Make sure your regular modem is working and connected to a phone line.

4. Using a splitter and extra cable wire, connect a line from your TV cable system to your cable modem.

5. Connect an Ethernet wire between the cable modem and your Mac Ethernet port. When you connect the power source to the cable modem it will initialize itself.

6. Install *IPNetRouter*. Don't open it yet.

There are a lot of instructions that come with *IPNetRouter* and with the CTVM package. You can read it all if you want to, and I hope you will not get as confused as I did, but the following instructions below should be all you really need.

7. Set up the Remote Access (or PPP) Control Panel, entering the information given to you by ExpressNet.

Button: Registered User
Name: the screen name you chose.
Password: the password you chose.
Save password -> check.
Number: the phone number they gave you, 301.296.0001
This is an example. The exact phone number will be found in the ExpressNet instructions under "Add Dial-Up Networking Connection", Step 1d.

8. Next, set up TCP/IP Control Panel. This is a little more complicated. The *IPNetRouter* instructions on the web give you a lot of information, which I found somewhat confusing. Here is the Reader's Digest version:

Open the TCP/IP Control Panel.
Under the File menu, choose Configurations.
The active configuration will be highlighted. (If not, select it. It is the one in the brackets in the title bar of the TCP/IP window.)
Rename it "*IPNetRouter*." (There is a Rename button.)
Make sure it is highlighted and click "Make Active."

Here is the way it should be configured:
Connect via: PPP
Configure: Using PPP Server
IP Address: <will be supplied by server>
Subnet mask: <will be supplied by server>
Router Address: <will be supplied by server>
Name server addr:
208.193.112.3
208.193.112.4

I found the Name server address in the ExpressNet instructions under "Trouble Shooting Tips" Step 5g on page 4. Check to see if your instructions are the same.

From the Edit menu, select User Mode, and select "Advanced." An "Options" button will appear in the bottom right corner.

Click "Options" and click "Active." Be sure "Load only when needed" is **not** checked. Then click "Okay."

Again, choose "Configurations" from the File Menu and make sure "*IPNetRouter*" is hilited.

Now duplicate it. (There is a Duplicate button.)
Now rename the duplicate "EtherRouter."
Click the Make Active button.
You are back in the TCP/IP window.

In the "Connect via" popup menu, select "Ethernet."
In the "Configure" popup menu, select "Manually."

In the "IP Address" box, type "10.0.0.1"
This is an example. The exact number is supplied in page 2 of the ExpressNet instructions under "Add and Configure the TCP/IP Protocol." step 3d.

In the "Subnet mask" box, type "255.255.255.240"
This is an example. The exact number is also supplied in page 2 of the ExpressNet instructions under "Add and Configure the TCP/IP Protocol." step 3d.
The Router Address is left empty.
The Name server addr., according to ExpressNet:
208.193.112.3
208.193.112.4

I found this in the ExpressNet instructions under "Trouble Shooting Tips" Step 5g on page 4. Check to see if your instructions are the same.
Click "Options" and click "Active." Be sure "Load only when needed" is **not** checked. Then click "Okay."

Close or Quit TCP/IP and save.

Now launch *IPNetRouter*.

In the gray area there is a "Configure Interface" section. There is a popup menu, which probably says "Ethernet". Use the popup menu to select "PPP". Check the "IP Masquerading" box. Make sure the two white boxes at the right are empty. These are IP Address fields you want to leave open.
Then click "Add" and you will go on-line.
Remote Access (or PPP) will automatically dial in. When you get a connection, new connection info will be added in the third line of the white Interfaces section. And the "Connect" button with change to "Disconnect."
Open your browser. Type in www.wap.org, and you are done.
I would hope that by following these instructions, you will have no problems whatsoever. However, if there are any problems, first try the following:
Unplug the cable modem for 5 seconds and plug it back in. It took me several excruciating days, twice, trying

to figure out what I was doing wrong before I learned that resetting the modem is the very first thing to try if you are having trouble.

ExpressNet does not support Macintosh. However, there were friendly and helpful people who were very willing to do what they could. One service technician didn't seem to even know what a Macintosh computer was. But, another, although hard to get hold of, runs a Mac at home, and helped me through several problems.

At one point, in order to get me back on line, the technician had to fix a problem by giving me a fixed address. I don't know what it means, but it worked. Keep that in mind just in case.

I made some comparisons between my cable connection through ExpressNet and my wife's iMac connection through AOL. Downloads were very, very fast. A file that took nine minutes through AOL took 23 seconds through Expressnet, approximately 27 times faster.

Surfing, however, is a little different, it is faster, but not that much faster. A great deal of time is wasted surfing when "waiting for reply". When you get a reply it comes in quick. Large, complicated pages download very fast. However, waiting for them to start loading seems to take about as long as with the AOL connection.

Surfing through the same path of 32 links, with AOL it took 832 seconds, and with ExpressNet it took 345 seconds, not quite three times faster. With AOL the average was 26 seconds per jump, and with ExpressNet it was 11 seconds per jump.

I spent an enormous amount of time learning the above, because I was coming from absolutely nowhere. I didn't know what to ask, and I didn't know what the answers meant. But I am on, and I am glad, and I hope that my efforts/lessons will be of some help to someone else.■

Click City

The Good, the Weird, and the Vague But True

Sharing by denizens of the Pi's Telecommunications System is by no means limited to matters technical: frivolity often runs high, as evidenced by the jambalaya of URLs contributed for the edification, entertainment, and sometimes bewilderment of all. Whatever the subject, someone on the TCS is sure to find it fascinating and be eager to share that enthusiasm with others. One enterprising editor collected a bunch of these contributions, and we offer them here for the delectation of all. Enjoy!

Crazy Dancin' Feet. . .

UNLESS YOU have no friends with e-mail addresses, chances are you've at least heard of the Hampster [sic] Dance

http://www.hampsterdance.com/

As often happens on the Web, something this silly just had to be (a) an overnight success and (b) imitated a zillion times over. There was the Jesus Dance, and then a few others, and now they've become an art form of their own. There are web rings of them, and collections, and <shudder> who knows what else?

http://www.funlinked.com/critter/

http://www.enteract.com/~campers/Dance/different.html

For instance, there's the "Puttin' on the Ritz" Penguin Dance

http://members.aol.com/darlingal9/ritz.html

a few Fishydances, not to mention frogs, lobsters, turtles

http://www.fishydance.com/surfin.htm

http://www.angelfire.com/in/mypics/frog.html

http://members.aol.com/pinkbreez/lobster.html

http://members.aol.com/darlingal9/turtle.html

the Hampster Dance redone in a minor key with a sour nonconformist

http://blackandcravey.com/web/hamster.html

or with genetically altered hamsters, or hamsters in a shooting gallery

http://www.roadrunner100.freeserve.co.uk/gmhamster/ausndgmdance.htm

http://www.newgrounds.com/assassin/hamster/

But none of them tops my new favorite

http://www.startext.net/homes/chris1/bunny.htm

Food for the Tummy and the Soul

Holidays & Gatherings

http://www.foodtv.com/holidays/ho-g1/0,1948,,00.html

Christmas Recipes
http://www.christmasrecipe.com/

Gingerbread Lane
http://www.gingerbreadlane.com/

Vegetarian
http://members.tripod.com/vegholiday/index.html

New Years
http://food.epicurious.com/e_eating/e04_newyears/main.html

White House Recipes
http://www.whitehouse.gov/WH/EOP/First_Lady/html/Recipes.html

Turn of the Century

NOAA's Top Weather, Water and Climate Events of the 20th Century
http://www.noaanews.noaa.gov/stories/s334.htm

Readings on the Millenium Whenever problem
http://test.nasw.org/lists/nasw-talk/hyper/index.html

Millenium in the Salt Lake City Tribune
http://www.sltrib.com/1999/Dec/12301999/nation_w/13830.htm

Arts and Sciences

Grim Grimm Stories
National Geographic presents this site that will read you a bedtime story, although these unexpurgated Grimm Brother's Fairy Tales from a 1914 translation are not exactly soothing. The twelve tales here are full of wicked stepmothers, hungry wolves, bewitched wild beasts, and all manner of spells and curses. [You'll need RealPlayer for this.]
http://www.nationalgeographic.com/grimm/

Sea Slug Forum
From the Australian Museum the recently redesigned Sea Slug Forum (maintained by Dr. Bill Rudman) offers information on nudibranchs and related sea slugs such as bubble-shells, sea hares, and side-gilled slugs.
http://www.austmus.gov.au/seaslugs/

National Gallery of Art Past Exhibitions
This site offers a narrative summary and key facts for each of the more than 750 special exhibitions held from 1941 through 1997.
http://www.nga.gov/past/pastexhibits.htm

Cora: Computer Science Research Paper Search
Visitors can conduct keyword searches over the partial text of some 50,000 Postscript-formated computer science research papers.
http://www.cora.justresearch.com/

Translation Resources
Glossary of cigar terms? Danish-Japanese dictionary? Collection of Cree language lessons? It's all here: an impressive and actively maintained collection of tools for translation professionals.
http://www.xlation.com/

Make the Dirt Fly!
This overview of the creation of the Panama Canal is a great online version of an exhibition at the Smithsonian Institution libraries.
http://www.sil.si.edu/Exhibitions/Make-the-Dirt-Fly/index.html

Web Tutorial
http://www.zdnet.com/products/garage/html/webpage101/

Basics of HTML
http://www.cnet.com/Content/Features/Howto/Basics/ss01.html

Eight Minute Primer
http://web66.coled.umn.edu/Cookbook/Win95/HTML/MinutePrimer.html

Introduction to HTML
By Eric Meyer at Case Western Reserve University
http://www cwru.edu/help/introHTML/toc.html

Tutorial for Frontpage and Powerpoint
http://www.microsoft.com/education/k12/learn.htm

Internet Detective Tutorial on using the web
http://sosig.ac.uk/desire/internet-detective.html

Used books
http://www.bibliofind.com

GravenStein Apple Users Group Humor Magazine
http://www.iscweb.com/gsaug/Editors/NL.Humor.pdf

Internet Resources Newsletter

The December 1999 issue of Internet Resources Newsletter, the free Web resource for academics, students, engineers, scientists, and social scientists

http://www.hw.ac.uk/libwww/irn/irn63/irn63.html

Clip Art Review

http://www.webplaces.com/html/clipart.htm

Biblical Resources

For scholars and students in religious studies, an all-in-one resource site, designed and maintained by Dr. Mark Goodacre of the University of Birmingham, creator of the New Testament Gateway.

http://www.bham.ac.uk/theology/goodacre/multibib.htm

American Mile Markers

Photographer Matt Frondorf spent six days driving across the country from New York City to San Francisco with a camera hooked to his car's odometer, automatically snapping a picture from the passenger side every mile along the way, totaling 3,304 photos.

http://www.kodak.com/US/en/corp/features/onTheRoad/home/index.shtml

Salty and Wet

Try these three links for everything you ever dreamed of wanting to know about the oceans, and for a wonderful collection of photographs you can grab (all in the public domain) and use, as long as you credit NOAA.

http://www.education.noaa.gov/

http://www.photolib.noaa.gov/

http://www.sanctuaries.nos.noaa.gov/pgallery/pgallery.html

And, for your shopping pleasure, we offer

http://www.mvpstore.com/catalog/Product.asp?PXC=1&PXS=4&PXP=589

where you will find a set of three action figures. And who are these three plastic supermen? (All male?) They're Microsoft Network Professionals! Get a set of three for $5.00. ■

Learning to Network With the AirPort

By Edgar Durbin

I'M NOT sure how this started. I was probably stampeded by the great American Christmas Buying Rush, but there was also the more specific Apple iBook marketing effort and multiple newspaper and magazine articles about instant Internet access via DSL. There were also days when I woke up to the 6 AM radio news and heard about something that wasn't covered in the newspapers we read later at the breakfast table. Finally, almost no news was available in any newspaper about the America's Cup Trials, while there is an excellent web site on that event (www.louisvuittoncup.com).

As a result of all this, in December instead of buying Christmas presents for anyone else, I was buying an iBook and an AirPort for me. I visited one local store, but they didn't have the AirPort, and the iBooks they had came only with Mac OS 8.6. By ordering online from www.apple.com, I got the iBook, the AirPort, and Mac OS 9. I selected the cheapest shipping method, and waited a little more than a week for UPS to deliver my two packages.

After unpacking the equipment, the first capability I wanted was to access the Internet from the breakfast table or from anywhere else in the house. Then I would try to access files off my Quadra 800 upstairs from the iBook. Instant Internet access via DSL was postponed until a later time. First I had to make the iBook and AirPort work.

I made a list of my TCS Explorer settings, reading values off the PPP and TCP/IP control panels and off the browser preferences on my Quadra 800 (*See chart next page*).

With these data in hand, I plugged a phone line into the iBook and launched the Internet Setup Assistant on the iBook. The Assistant enters data in the right places in Remote Access (the Mac OS 9 dialup software that has replaced FreePPP and PPP) and in TCP/IP. You can't count on your browser getting the right settings though, since the manufacturers of the browsers want you to go to their corporate sites. You may have to manually set your home page, news and search preferences; otherwise they will be set to some Apple, Microsoft or Netscape corporate addresses. After running Internet Setup Assistant, and successfully connecting to TCS Explorer, I was ready to set up the AirPort, using the AirPort Setup Assistant.

I disconnected the phone line from the iBook and plugged it into the RJ-11 jack on the AirPort Base Station. I plugged in the power cord from the AirPort power brick, then launched AirPort Setup Assistant, which took my Internet settings from Remote Access and TCP/IP and entered them into the AirPort modem settings. I was prompted to enter a name and a password for a "network," meaning the AirPort Base Station. I named mine Dulles. When the Setup Assistant finished, it connected to the Internet. When I started my browser, it connected to TCS Explorer. To

PPP settings	
Name	first.last [Suubstitute your first and last names]
Password	[Can leave ablank or fill in]
Number	1-301-984-4980 [For non-Marylanders]
Use protocol	PPP
Connect automatically when launching a TCP/IP application	Yes
Allow error checking and compression on modem	Yes
Use TCP header compression	Yes
Connect via command line host	No

TCP/IP settings	
Connect via	PPP
Configure	Using PPP Server
Name server address	205.177.49.200 205.177.25.9

Browser settings	
Home page	http://www.wap.org/explorerhome.html
Incoming (POP) mail server	mailroom.wap.org
Outgoing (SMTP)	mail server smtp. wap.org
News server	news.wap.org

shut down, you just close the iBook, and it goes to sleep. The default setting is to disconnect after 10 minutes of inactivity.

Waking up the iBook takes about 20 seconds. (It takes 3 minutes for my Quadra to turn on.) Though the desktop appears, if you click on the Control Strip or try to launch an application, there is not an immediate response. I just click on the Control Strip and wait for it to spring open. I then click on the red AirPort icon on the Control Strip, and when it opens, I turn the AirPort On and then select Dulles. I am prompted for my password (for Dulles, not for the TCS), and after giving it there is a 30-second delay, while the Base Station modem connects to wap.org. At this point, I can launch my browser and go about my business.

I can leave AirPort On all the time, eliminating one of these steps, but without writing a script the process to connect to the Internet is a couple of steps longer than connecting via my Quadra 800 modem, since on the older machine I just launch the browser and the connection is made automatically by PPP. The extra step in the AirPort process provides password security, so that anyone with an AirPort card in their laptop cannot connect to my network. No, I don't believe there is another AirPort laptop within 150 feet of my Base Station, but if there were... Transmissions between my iBook and the Base Station are encrypted by default. This and other settings made by the Setup Assistant can be changed manually, using AirPort Utility. Another application, called AirPort, can be started off the Control Strip, to monitor signal strength at the iBook from the Base Station.

My next job was to connect my Quadra 800 to the AirPort network. I had to buy a Farallon AAUI adaptor, since the Ethernet port on the Quadra is not an RJ-45, such as the Base Station and the iBook have. The adapter comes with an Ethernet patch cable, but I also had to buy a crossover cable, which is something different. They are made of the same sort of wire and have the same RJ-45 plugs, but have different pin connections, as explained at http://www.farallon.com/support/technotes/gen/TEC_012.html. You can read the pros and cons of crossover cables on the TCS Conference 3 Board 2 and in a good article on the Electric Pi at http://www.wap.org/journal/networkingmadesimple.html. The alternative is to use patch cables from the Base Station and from the AAUI adapter to an Ethernet hub.

Not having a hub (yet) I plugged the crossover cable into the Base Station. I opened the TCP/IP control panel on the Quadra and from the File menu selected Configurations. I duplicated a configuration, then renamed it Dulles. Then I made Dulles the active configuration, and from the Dulles window I selected Connect via: Ethernet and Configure: Using DHCP Server. I then closed the window and saved this new configuration. As long as I have connected to Dulles with the iBook, when I launch a browser on the Quadra, it shares the connection to wap.org with the iBook. That is, I can browse at the same time from the iBook or the Quadra. I don't claim this is often useful, but I can.

The more pressing reason for plugging the Quadra into the Base Station is to allow me to pass files between the iBook and Quadra. Currently, I have no USB devices, so the

only routes into the iBook are via e-mail or file sharing via AirPort (or web sharing, perhaps, but I haven't investigated that yet). So far, I've found file sharing to be cumbersome. First, I must open the AppleTalk control panel on the Quadra and select Connect via: Ethernet. That breaks the connection to my Hewlett Packard LaserJet printer, which is inconvenient. On the iBook in AppleTalk I select Connect via: AirPort. No problem there. Back on the Quadra, in the File Sharing control panel I turn File Sharing On and designate the folders or disks to share, allow guest sharing, enter user names, passwords, etc. Then on the iBook I launch Chooser, select Apple Share in the left side, and click on the folder or disk on the Quadra that I have designated to be shareable. I am prompted for username and password, or enter guest, and finally the folder or disk icon appears on the iBook desktop.

The iBook was my introduction to Sherlock, since I have been running Mac OS 8.1 on my Quadra. I have been very pleased with this application, which resides on my iBook and accesses search engines that have supplied plug-ins to operate with it. You can select whether or not to search at Alta Vista, Excite, c|Net, Direct Hit, GoTo, HotBot, Infoseek, LookSmart, and Lycos search engines. Other sites are building Sherlock plugins, which you will be able to download to lengthen this list. Sherlock retrieves and lists pages found by those web search engines, in relevance order. A preview window shows a few lines of information about the selected document. You can drag a document from the Sherlock window and drop it into your browser window, to see the whole page.

The beauty of Sherlock is that you mostly bypass the ads that fill up your screen if you use the search engines yourself. There is a small window below the preview window with ads, presumably from the search engine whose document is currently selected. Again, your iBook comes with some Microsoft bias built in, so if you just double click on a document in the Sherlock window, you are apt to launch Explorer, even if you already have launched Netscape.

Other software that came with the iBook is AppleWorks, which is a pleasant surprise. I hadn't counted on that, but it is nice to have something besides Microsoft apps, whose complexity I have to cope with at work. So far, all I've tried is the word processor. I could wish for tables, but I don't plan to even try to move Word and Excel onto the iBook.

The iBook screen has fewer pixels than I am used to, 800x600 vice the 1152x870 on the monitor I use with my Quadra. That's half as many pixels. The iBook also is not as fast as I'd expected. The Quadra has a 33 MHz 68040 processor, while the iBook has a 300 MHz G3 processor. It doesn't seem 10 times faster, though, and there are delays, perhaps while it is waking up or reconnecting.

I guess the next thing to do is to buy an Ethernet hub and adapters to connect my printers to Ethernet, so that all my computers can send them jobs directly, without file sharing. That is for another article, though. ■

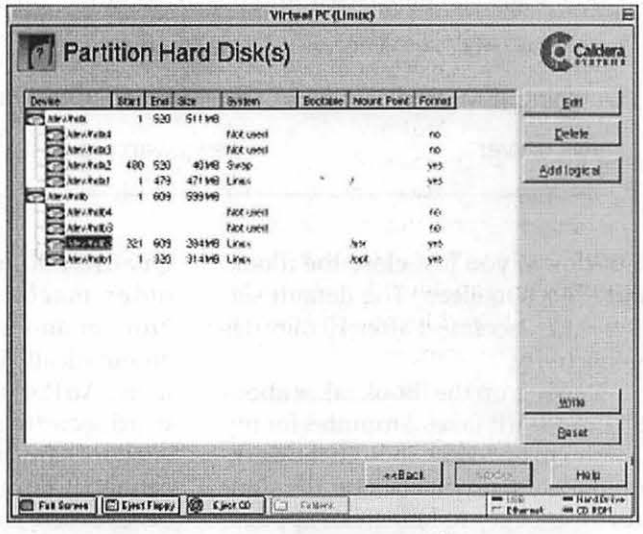
Because It's There: Linux on Virtual PC

© 2000 Washington Apple Pi Labs

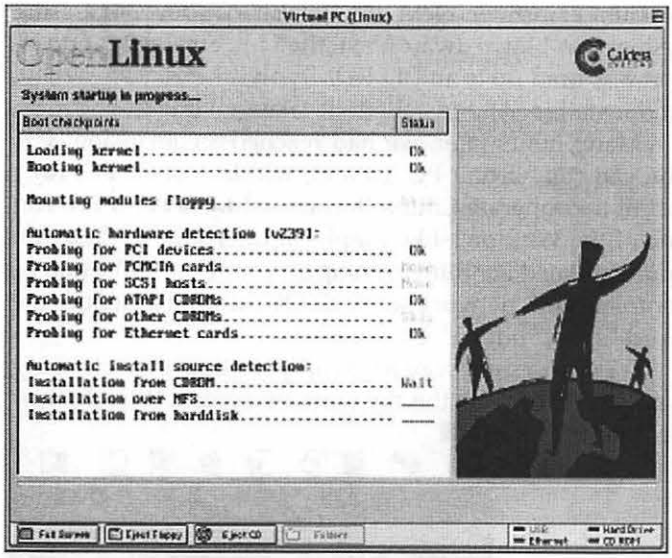
WASHINGTON Apple Pi Labs has always enjoyed challenges. From the very beginning, whenever that was, we strove to do the impossible, the improbable, and sometimes the clearly silly. When we first got our hands on a gigabyte hard drive, for example, we immediately plugged it into a Macintosh IIfx (at that time, the file server for the Pi's bulletin board, the TCS), and set virtual memory to a full billion bytes. Then, flush with all this imitation memory, we launched, simultaneously, every single application we could find, even going so far as to install an extra 20 or 30 so we could have them all running at once.

It was grand and glorious, a prime example of conspicuous computing. It was also painfully slow and, admittedly, without a readily identifiable purpose, particularly when we ran out of applications before using up more than a third of the memory. So: why?

Why would anyone in their right mind want to in-



The advanced partitioning options of the OpenLinux 2.3 installer were used to create several partitions in Virtual PC 3.0. This is not for the faint of heart (and, in fact, this partitioning attempt proved to be unsuccessful). Note the Virtual PC icons at the bottom of the screen, used for changing the screen size and accessing various types of media.



During the installation process, the installer checks out the (emulated) hardware to see what "devices" are available. A device, in typical UNIX fashion, can be something physical, such as a CD-ROM drive, or a "logical" device, such as a hard drive partition.

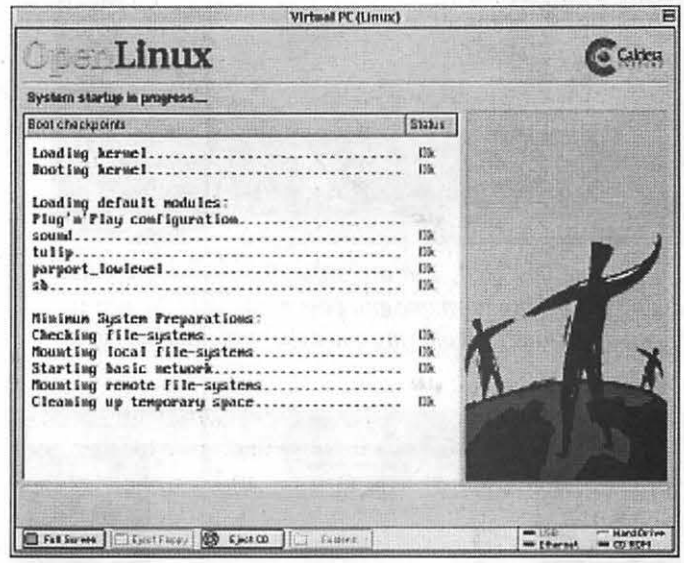
stall an Intel version of Linux on a Macintosh? Since the Mac doesn't use an Intel central processing unit (CPU), this seems a strange thing to do, especially when there are perfectly good PowerPC-specific versions of Linux available. So: why?

George Mallory, attempting to climb Mount Everest in 1924, was asked the same simple question: why? "Because it's there" was his famous answer. On June 8, 1924, Mallory disappeared on Everest. Seventy-five years later, on May 2, 1999, Mallory's frozen body was found on the mountain. No one knows if he ever made it to the top.

Half a world away and several miles closer to sea level, Washington Apple Pi Labs still thinks Mallory had the right idea: "Because it's there." Or at least it might be, given a late-model translucent-cased Power Macintosh, lots of memory, lots and lots of free hard drive space, Virtual PC 3.0 from Connectix, and one of the many "commercially packaged" versions of Linux. So on a frozen January morning, with the entire East Coast shut down by a surprise blizzard, Washington Apple Pi Labs attempted something you probably don't want to ever do yourself.

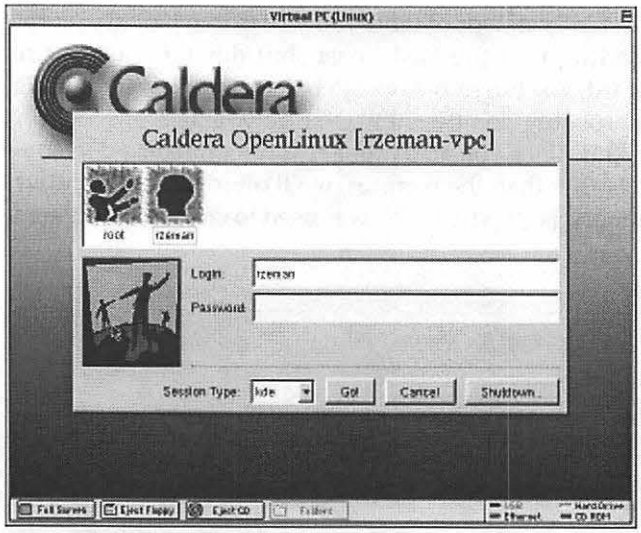
And, since you also probably aren't interested in anything other than the pictures, we'll offer just an executive summary. First, Virtual PC was used to create an emulated

> "It was grand and glorious, a prime example of conspicuous computing. It was also painfully slow and, admittedly, without a readily identifiable purpose, particularly when we ran out of applications before using up more than a third of the memory. So: why?"

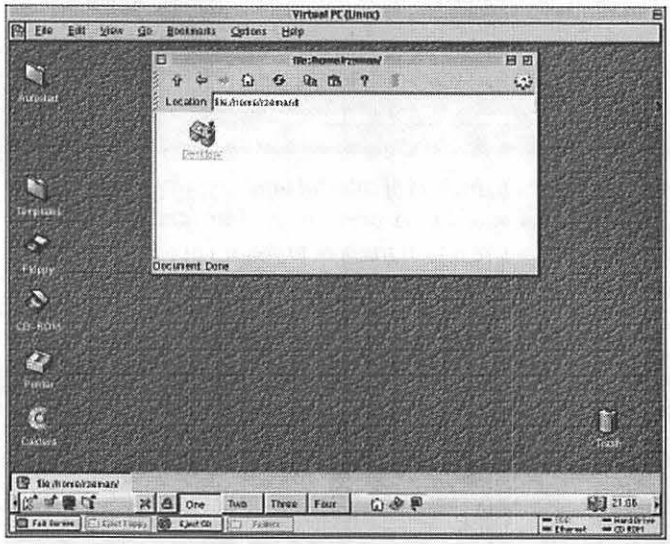


After installation, instead of colorful (and cryptic) startup icons, Caldera's version of Linux offers nice, clear (and still cryptic) milestones of where it is in the boot process. The "Plug 'n' Play" and "tulip" milestones are the target of frequent humor.

Once Linux has initialized and you've signed on, you have the option of opening up a terminal window (tty console) and trying out the famous, easy to understand UNIX CLI (command line interface).



Every time you boot, you are presented with a graphical dialog box asking for name and password. Note the pop-up menu in the lower left offering you a choice of interface types.

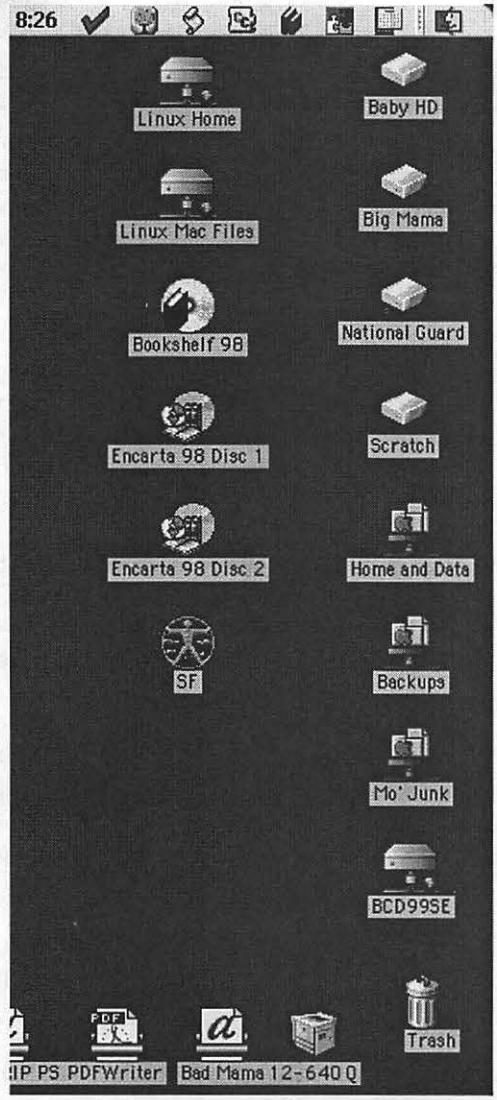


If you select KDE (which stands for "K Desktop Environment") when you first log in, you are presented with this cheery graphical user interface, patterned after the browser mode of Microsoft Windows 98. Thus, after hours of work, you can stand proud, knowing that you have a UNIX emulation of Windows 98 running on an emulated PC running on a Macintosh. The "K" in KDE, by the way, apparently stands for nothing other than the letter between "J" and "L."

Pentium computer. Next, the default Windows operating system was blown away. Next, the Linux installer application was fired up from CD-ROM, and Linux was installed. And installed. And installed. (It takes a while.)

Many hours later, we had reached a conclusion: yes, you can run Virtual PC 3.0 and, within Virtual PC, fully install and operate Linux. If you wish, you can even run one of the Windows-like graphical interfaces to Linux on your emulated Pentium running on your Power Macintosh, complete with network services. Of course, it redefines the word "slow," but it does work.

It is also a safer way to spend your time than climbing nearly six miles into the sky without oxygen. Why do this? Because it's there. ■



While not directly related to this project, this window shows a "good use" for a Linux machine: CD-ROMs saved as Linux disk images, mounted under Linux and shared over a network via netatalk so they can appear — and be used — on a Macintosh desktop. Yes, there are less Byzantine ways of doing the same thing, but they probably aren't nearly as entertaining

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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 //			
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Walt Francis	202-966-5742	General	
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Seth Mize	410-766-1154	World Wide Web	Sailor
Jaque Davison	703-644-7354	World Wide Web	Web Site Builder
Macintosh			
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Robert Sambolin	203-853-2512		General
John Engberg	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 Illustrator 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
Dave Jernigan	540-822-5137	Foreign Languages	Greek Tutor
Dave Jernigan	540-822-5137	Foreign Languages	Hebrew Tutor
Dave Jernigan	540-822-5137	General	

Washington Apple Pi Office
12022 Parklawn Drive, Rockville, MD, 20852.
M-W-F 10 a.m.—6 p.m.; Tue 7 p.m-9 p.m.; Sat 9 a.m.-2:30 p.m.
Web address: www.wap.org
e-mail address: info@tcs.wap.org

March 2000

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 *Networking* *Quicken-Intro* *Photoshop 1* *Linux Clinic*	2 *QuickTime* *MS Word Intro* *Columbia Slice*	3 *Intro to Databases* *AppleWorks 6*	4 *DelMarVa Slice*
5	6 *Intermed Mac-P1* *Graphics Intro* *PhotoDeluxe Intro*	*Clinic* 7 *Intro to Mac-P1* *TCS - Intro* *Photoshop 2*	8 *Scanner Intro* *Apple i-Tools* *WAP BoD*	9 *Intro to Mac-P2* *Internet Intro* *Stock SIG*	10 *AOL e-mail* *Netscape e-mail*	11 *Graphics SIG* *Frederick Slice*
12	13 *Intermed Mac-P2*	*Clinic* 14 *Intermed Mac-P1* *Geneology SIG*	15 *Excel SIG*	16 *AppleWorks Intro* *Intermed Mac-P2* *Excel - Intro*	17	18 *Linux Slice* *Annapolis Slice*
19	20 *i Visit i Mac-P1*	*Clinic* 21 *Intro to Mac-P1* *i Visit i Mac-P1* *PageMaker Intro*	22 *Quark-Intro* *Retired SIG*	23 *Intro to Mac-P2* *i Visit i Mac-P2*	24	NoVa ComCol WAP General Meeting 25
26	27 *i Visit i Mac-P2*	*Clinic* 28 *Advanced Mac-P1*	29 *Outlook Ex. e-mail* *Internet Dunloading*	30 *Web Page Workshop*	31 *Adobe Go-Live Intro*	

April 2000

WAP Office Phone: 301- 984-0300
TCS 2400 bps: 301-984-4066;
TCS 14400 bps: 301-984-4070

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30						1 *DelMarVa Slice*
2	3 *Intro to Mac-P1* *Apple i-Tools* *Intermed Mac-P1*	*Clinic* 4 *Intro to Mac-P1* *TCS - Intro*	5 *Intro to Mac-P2* *AppleWorks 6* *Photoshop 1*	*MS Word Intro* 6 *Intro to Mac-P2* *Appleworks - Intro* *Columbia Slice*	7 *Appleworks - Adv* *AppleWorks Newsltrs*	8 *Graphics SIG* *Frederick Slice*
9	*Internet Intro* 10 *Intermed Mac-P2* *i-Tools HomePage*	*Clinic* 11 *Intermed Mac-P1* *i Visit i Mac-P1* *Geneology SIG*	*AOL e-mail* 12 *NetscapeCom e-mail* *WAP BoD*	13 *Spreadsheet Intro* *Intermed Mac-P2* *Stock SIG*	14 *Internet Dunloading* *Outlook Ex. e-mail*	15 *Annapolis Slice*
16	17 *Graphics Intro* *PhotoDeluxe Intro*	*Clinic* 18 *i Visit i Mac-P1* *Intro to Mac-P1*	*Scanner Intro* 19 *Digital Camera Intro* *Excel SIG*	20 *i Visit i Mac-P2* *Intro to Mac-P2* *Excel Intro*	21	NoVa ComCol WAP General Meeting 22
23	24 *Web Page Workshop*	*Clinic* 25 *Advanced Mac* *Illustrator Intro*	26 *Retired SIG*	27 *Adobe Go-Live*	28 *Web Graphics*	29

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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

Linux SIG
Contact William Byrd at wbyrd@fred.net for information.

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—upcoming in June

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 . Next meeting: March 23, 2000.

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.

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

Name	Telephone	Heading	Subjects
Joan Jernigan	540-822-5137	General	
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
Eric Seidel	540-667-5289	General	Hardware
Robert Sambolin	203-853-2512	General Repairs	Older Mac through SE30
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	
Jim Kelly	301-926-2949	General	Applescript
Henry Miller-Jones	703-478-3721	Answering Syst.	Mac Commcenter,FAXcilitate, GV
Henry Miller-Jones	703-478-3721	General	Fax Software
Joan Jernigan	540-822-5137	Hypermedia	HyperStudio
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
Henry Miller-Jones	703-478-3721	Integ. Packages	ClarisWorks
Joan Jernigan	540-822-5137	Integ. Packages	ClarisWorks
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
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
Henry Miller-Jones	703-478-3721	Networking	AppleTalk
Jerry Iler	410-987-5432	Older Claris	Genera
Henry Miller-Jones	703-478-3721	Online Services	AOL, CISI
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
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
Henry Miller-Jones	703-478-3721	System	Mac OS
Bernie Benson	301-951-5294	Telecomm.	Modems Hayes Smartmodem
Henry Miller-Jones	703-478-3721	Telecomm.	ProTerm
Henry Miller-Jones	703-478-3721	Telecomm.	General
Henry Miller-Jones	703-478-3721	Telecomm.	MacTCP, Free PPP
Henry Miller-Jones	703-478-3721	Utilities	General
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
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	410-997-0066	Word Processing	Hebrew
Tom Cavanaugh	301-627-8889	Word Processing	MS Word
Joan Jernigan	540-822-5137	Word Processors	Claris Works
Dave Jernigan	540-822-5137	Word Processors	Word Perfect
Henry Miller-Jones	703-478-3721	WWW	Netscape Navigator
Macintosh & Apple			
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	301-294-2287	Telecomm.	General
John Barnes	301-652-0667	Telecom	AOL
Dale Smith	301-294-2287	Telecomm.	TCS
Nancy Seferian	202-333-0126	Telecomm.	TCS
Paul Schlosser	301-831-9166	Telecomm.	TCS
David Harris	703-845-1331	Telecomm.	TCS
Networking			
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

We're updating the hotline!!

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

Let us know if any of this information is incorrect. Thanks.

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 Downloading
<O> ..... Off the System
<Q> ..... Quit to Main Menu
<R> ..... Read File Descriptions
<T> ..... TitleScan Descriptions
<U> ..... Upload a File or Files
<W> .... Welcome Bulletin

Editor Menu

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

Change Conference Menu

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

Conference Menu

<A> ..... Adjust Pointers
<C> ..... Change Conference
<G> ..... Global Read All New Msgs
<L> ..... List All Available Boards
<O> ..... Off the System
<Q> ..... Quit to Main Menu
<R> ..... Read All New Msgs
<W> .... Welcome Bulletin
<X> ..... Xfer All New Msgs
<Z> ..... 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 50 for the TCS Help Hotline phone numbers.

Best of the TCS

compiled and edited by **John Ludwigson**

Under the Hood, or What Makes the TCS Run....

Poke a Penguin and, often, out pours all sorts of fun and useful information about how things work. At the Pi, the innermost sanctum is the TCS room, or closet as it is sometimes irreverently (but accurately) known. Within its air-conditioned confines, the Penguin crew labors mightily to head off potential problems and solve those that pop up and bite us. Here's a peek behind the veil. First, the news....

PENGUIN **Alpha**: To avoid sudden support headaches, this announcement is going out here first for those of you who stay tuned in. We've been able to change a couple things about TCS Explorer to make them easier to use, without requiring any changes for those of you who are already up and running.

Improvement One: The PPP Connection Process—The dial-up equipment can now autosense PPP vs command-line calls, and we've configured it to do so. This means you can optionally turn off "connect to a command-line host" in your PPP (or Remote Access) settings. And new members no longer have to be walked through locating and importing the connection script.

If you decide to switch off "connect to a command-line host" in the control panel, you might be able to shave off as much as a second or two of the process of connecting to TCS Explorer. (There's a brief delay in order for autosensing to work, and you can minimize it by switching from the connection script to PPP authorization.) If this paragraph doesn't make complete sense to you already, my advice is that you continue with your working system as is and only maybe return to the issue the next time you reinstall Mac OS. There's no shame in sticking with what works.

Improvement Two: E-mail Addresses—We're going to go ahead and drop the "tcs" from our e-mail addresses, and let everyone use "@wap.org" if they're so inclined. "@tcs.wap.org" will continue to work, so you don't need to run out and notify all your correspondents. But we just like the shorter addresses, they're easier to remember, and the reasons for keeping tcs.wap.org separate behind the scenes are no longer significant.

Any mail sent to you @wap.org now shows up the exact same place as any mail sent to you @tcs.wap.org, and you pick it up the same way. No differences.

If you decide to take advantage of your "@wap.org" address in your own e-mail program, the only change you should make is in the "Return Address" field. All other settings – SMTP and POP servers, POP accounts... they shouldn't change.

Reiteration: Nothing Needs Done On Your Side—These are two simple usability improvements that we think people will enjoy, but they're both backwards-compatible with your existing configurations. Feel free to tweak your settings if you'd like, or not. Either way, have fun! /;+/

[*Somewhat later, a typically informative exchange took place on an all-too-familiar topic: "can't connect".*]

Pi-ster 1: Might the authentication server be whacked again? The modems answer and connect, but "authentication failed" is where things end. (as of 4:41 PM, Tuesday, December 14, 1999) I'll check some more here, but if history is a guide....
Sorry about the bad news!

Pi-ster 2: Same problem: 12/14/1999 @ 5:02 PM

Pi-ster 3: Same problem here, I suppose, although I was on a Windows machine and anything is possible. I ran the script, was told it was "verifying user name and password," and then received the message "unable to establish a connection."

Pi-ster 4: Probably the same problem but with the AirPort I am working blind. 12/14/99 @ 6:11pm.

Penguin Alpha > Might the authentication server be whacked again?

Actually the authentication server hasn't been whacked for quite some time now. In case it gets confused, it quits, and a watchdog process picks it up within a few seconds and gets authentication up and running again. (Plus it maintains a log file of this behavior, and it sends me an immediate e-mail notification.)

However, for the dial-up controller to see the authentication server (or for the rest of the world to see wap.org in general), the firewall has to be up and alert and routing packets to the right places. Every now and again our firewall is getting overwhelmed and

confused, and requiring attention.

In nearly all cases, when this has happened it's caused sporadic behavior – some large percentage of packets (maybe 40% or so) get dropped. Things keep running, in general, but sometimes it takes several calls before dial-up goes through completely. And DNS lookup can take extra long, and web pages come up with most of their images missing, that sorta thing – large scale but not complete packet loss. It took me a while to experiment with this (it doesn't happen often enough to be able to really try the sorts of things I'd want to try to isolate the trigger circumstances), but I've gotten to where I can now catch this problem soon after it happens, and restart the firewall from home.

This time around the circumstances were new. The firewall had completely frozen, with the test light on. No response to anyone, either from here or presumably from home. This is a behavior we'd thankfully not yet ever seen.

And somewhat to my embarrassment, it must've happened just before I walked out the door to the Pi office. I showed up at 3:30 to meet with someone and help with a non-TCS project, and that person wasn't here. So I checked the boards for anything requiring my attention, and then I stepped out for dinner and a bit of shopping. When I got back at 5:45 I got your message, investigated, and got things working just before 6pm. <shrug>

One thing: even if there'd been a dozen messages on the subject, I don't think I would've been able to address the situation any earlier. I don't quite know what to do with "me too" messages, as they take time and attention away from solving the problem – although I do understand that others may find them comforting. They don't help explain what's going on, and as they age in the system they drown out the explanations and actually cause confusion – but for that period of time (an hour? several?) before I get things under control I understand that they provide comfort to interested persons in an "it's not just me" sorta way. Makes sense. Still, then they sit there – and some 60%, 80%, whatever of the people who read them are not affected by the problem,

---

"I am interested in getting a cable modem, once they are available in my area. I was wondering, however, what kind of security issues there are (if any). Would I need to do something along the lines of establishing a firewall? And how would I do this?"

---

and thus they see the opposite effect: "maybe there's something wrong that I'm not seeing". And "maybe that's responsible for the 404 errors I keep getting from that site I used to like", and (believe it!) even "is this why I can't print?"

I don't know what to propose about this other than to thank the person who first points out something and to quietly grumble to myself about the "me too" effects. Do you think it might be too much to ask that people amend their messages after the crisis is cleared, so that anything chicken littlish now says "[see msg #NNNN for the solution]" at the end? Some people have trouble following message threads, so Examine Replies isn't going to find their answer.

I know, what a grouch. :} But these are the things that go through my mind while driving from state to state to deal with issues like this. I thought I'd at least let people know the patterns I see, and ask for understanding.

Pi-ster 5: >I don't know what to propose about this other than to thank the person who first points out something ....

Don't know or understand all the magic you perform to accomplish what you do on the TCS but, since in one instance you're able to generate a email notification of a problem, is it possible to have a automatic TCS posting be generated and posted on this Board? It could say something like "A problem occurred with the widget Mac and interrupted email service, it has now been resolved."

Penguin Alpha: > Don't know or understand all the magic you perform to accomplish....

Not a bad thought, but I'm unclear on what we'd gain from the work. Once I have enough data on a problem to be able to catch it while it's happening and trigger an automatic correction, the problem no longer affects TCS Explorers. Every ISP does this: watchdog processes keep track of their server processes, and problems are caught and recovered automatically. (Once the nature of the problem and/or its solution is well-understood. The first occurrence of a problem is tough to anticipate.)

If I'm online from home, and I spot a problem that'll require my driving in, maybe I should be better about post-

ing a message there saying "I see it – gimme half an hour to get to Rockville and see what I can surmise." But in general when a problem requires that kind of attention, there's no way for me to post a notice and no way for you to receive it until it's all past tense. In general, I think I've been pretty good at explaining the past tense stuff.

If what you're asking is merely a curiosity issue, I can show you the complete set of logs from when the RADIUS authorization/authentication server process has crashed. I caution you again: this log's only valid use is in looking for patterns. Off-the-shelf software fails sometimes, and this log shows us only the automatic corrections thereof. (The watchdog process checks once a minute to see if RADIUS is running, and corrects it and logs a message when it's not.)

RADIUS recovered from crash at Mon Oct 11 03:57:00 EDT 1999
RADIUS recovered from crash at Wed Oct 20 19:57:01 EDT 1999
RADIUS recovered from crash at Thu Oct 21 05:01:00 EDT 1999
RADIUS recovered from crash at Fri Oct 29 10:41:00 EDT 1999....<snip>

Prior to this automatic correction, we'd had half a dozen or so such crashes across a couple months. Enough to give me the information I needed to have the problem handled automatically starting in mid-October.

By the way, the log above is from the older server, a fairly slow (for Mac OS X Server purposes) 7500 running the Cistron RADIUS software release 1.5.4.3. Since the beginning of the month we've been slowly introducing a much faster G3 system, and that's now running Cistron RADIUS 1.6.1 (while we wait for further development in the FreeRADIUS project). Here's the new guy's log, in toto:

RADIUS recovered from crash at Thu Dec 9 16:07:58 EST 1999

So, whenever possible I prefer to focus my attention on making problems not happen in the first place. If that isn't possible, or doesn't yet seem possible given the available information, I aim toward prompt notification of the authorities (usually me) for the dual purposes of data collection and rapid recovery.

I see value in spelling out what's happening, including big picture context and small picture experiments, and in answering people's many follow-up questions and suggestions. But when it gets down to it, it's better to do these things during times when there isn't an immediate crisis demanding my attention. And of course, when there isn't an immediate crisis, I also like to focus my attention on new developments and forward-looking changes – both as a personal preference and as my hunch as to what's better for the Pi in the long run.

GOSUB

Among those who worship at the Church of the Mac, programmers surely are the high priests. But even they have their problems. Once again, the veil lifts...a little bit.

Puzzler: It's 1963 and I need to know the FORM of the gosub statement in BASIC. .

Greybeard: Easy: the command and then a line number, as in: GOSUB 2104 Make sure you leave columns 1-7 empty. GOSUBs are normally nested in a loop, as in:

```
10    DO 100 I=1 to 10
IF X<Z THEN X = X + I
GOSUB 2104
[etc.]
```

Actually, I'm not sure BASIC existed in 1963, so my example, come to think of it, is more WATFIV FORTRAN than BASIC. Be sure to stack your punch cards neatly.

Wiz: >It's 1963 and I need to know the FORM of the gosub statement in BASIC.

BASIC was 1970, wasn't it? And I'm not sure what you mean by "FORM" but the exact syntax will vary by dialect. For example, Applesoft BASIC and Apple Integer BASIC are both strictly line-numbered dialects. So a GOSUB statement has a single numeric argument which is evaluated as the line number of the next statement to be executed.

In Applesoft BASIC this argument must be a constant number (go Microsoft), so the statement takes the form "GOSUB 50" or similar. In the earlier Integer BASIC it's the result of a numeric expression, so it can be something like "GOSUB A * 1000" and evaluate to 1000, 2000, 3000...

More recent dialects encourage the use of alphanumeric labels in addition to or in lieu of line numbers. So the statement "gosub CalculateNextNumber" may have meaning if there's a label in the program by that name. I don't know the syntax for any specific dialects that do this.

Puzzler: >Easy: the command and then a line number, as in: GOSUB 2104

Thanks, but I guess I asked the wrong question. Here's a (really) simple BASIC program. What's wrong?

```
>10 input a,b
>20 gosub 30
>30 c=a/b
>40 return
>50 print a,b,c
>run
? 2
?? 3
```

RETURN without GOSUB in line 40

I think my question should have been: How does the subroutine know what the input and output variables are?

Puzzler to Wiz: I see by our date stamps that I sent my message 00:01:24 after you sent yours (on the rash assumption that the clocks are synchronized). My reply to (Greybeard) shows what I really wanted to know rather than what I asked. Thanks.

Please excuse the "1963!" I picked a number out of a Recycle Bin (if you'll excuse the expression).

Puzzler: Or this one:

```
>10 input a,b
>20 gosub 40
>30 print a,b,c
>40 c=a/b
>50 return
>run
? 2,3
2     3     0.666667
RETURN without GOSUB in line 50
```

Wiz: >Please excuse the "1963!" I picked a number out of a Recycle Bin

Don't worry about that, I was just testing my own knowledge. (The scary part is that I have a strong hunch BASIC was invented at Dartmouth in 1970, only I have absolutely no idea why I think that, and I wasn't even born then.)

>Here's a (really) simple BASIC program. What's wrong?

Trace through it, step by step. First you visit 10, then 20, which gosubs to 30, then continues to 40, -then returns- to complete the gosub on line 20, continues onward to 30, then to 40, then hits a second RETURN without a corresponding second GOSUB, hence the error. If you want the program to stop after the GOSUB, try inserting "25 end".

>How does the subroutine know what the input and output variables are?

"If you set up a network in your office, you presumably know everyone else on the network. They, presumably, share the same goals you do: success of your organization. (If they don't, they should become _former_ coworkers.)"

Traditionally, BASIC doesn't have local variables. If A and B change values in the middle of the subroutine, then return to the main program, A and B in the main program will have changed as well. (They're exactly the same A and B, throughout the entire program.)

Some of the newer dialects, those which support labeled procedures rather than straight line numbers, do support the concept of local variables, passed parameters, and other manner of context and scope. I don't know the syntax of any of those dialects – they're all nonstandard extensions, indispensably useful as they are...

Puzzler: >Trace through it, step by step....

Oops, you're right.

```
10 input a,b
20 gosub 30
30 c=a/b
40 return
50 print a,b,c
```

Does that mean it did line 30 twice?

I have a feeling I'm remembering pieces of PLI and Fortran and trying to put them into BASIC, but thanks.

Wiz: >Does that mean it did line 30 twice?

I suspect it did. Again, I don't know what interpreter/compiler you're using, so I can't comment on its specific dialect.

> I have a feeling I'm remembering pieces of PLI and Fortran....

Wow! Beats me – I've never written a PL/1 program, though I've had to look through a couple to figure out why a server wasn't cooperating with some C libraries I was working on. Fortran's a little more familiar... but just a little. :}

I started with BASIC on my own, which seemed to be pretty much the standard approach at the time. I was taught Pascal in high school, picked up assembler and C both somewhere thereafter, then was taught C++ in college. (Not counting the course that taught me Lisp, ML, and a bunch of other theory languages I can't remember at all.) I still work with Applesoft BASIC on the TCS all the time, but boy does Pascal look really foreign to me nowadays...

Puzzler: Thanks for your comments.

I finally got my BASIC program to work the way I wanted - without gosubs! - but with several for-next statements. The program calculates

the frame in a second video corresponding to one in a first video. A pair of frames in the first video (live action) is known to match a pair in the second (my animation). I pick an intermediate frame in the first; the program calculates the corresponding frame in the second. The frame times have to be converted from seconds:frame to integer+decimal seconds for the interpolation and back again.

But, as someone on the TCS commented in a similar situation, I could have calculated all the intermediate frames I needed faster with a hand calculator than the time it took me to get the BASIC program working! But, that's not the point!

More than you wanted to know!

Wiz 2: You may have missed Wiz 1's point about the "END" line at the end of the main program. Put your subroutines after the END. At the end of each subroutine, put a RETURN.

As your program encounters a "GOSUB nnn" (presumably nnn will be after the END) it will transfer control to line nnn (keeping a copy of the line number with GOSUB). When a RETURN is encountered, it goes back to the line after the GOSUB. Your subroutines may call other subroutines.

Wiz 1: >More than you wanted to know!

No, it sure wasn't— I've been eager to hear where you were going with this! And as I've come to expect, I wasn't disappointed...

Greybeard: >But, that's not the point!

Absolutely!

True story: the guy who developed dBASE (the first true programmable mass-market relational database, back in the late 1970s) ran _one_ ad in Byte magazine, describing the program. But he was so intent on writing, and finishing, a program to automate keeping track of scores in his bowling league that he let a half million dollars in sales accumulate in mail bags in a spare bedroom. Learning how to solve some problems in his bowling program was – why wasn't this clear to EVERYONE!?! – way, way more important than cashing those checks and making money.

Online? Maybe! (DSLs & Hackers...)

fast, Fast, Faster, FASTER !! Once modems ran at 1200 baud (an arcane term nobody could define), then 2400, then 9600, 14,400, 28,000,...56,000 (sorta). Then things got out of hand: people discovered digital subscriber lines (DSL), the proper use of cable TV's coaxial cables, and lusted after optical fibers with throughput measured in Mega...no, Giga...no, Tera bytes per second! Herewith some first person accounts from the front lines of the information superhighway.

Enthusius: I want to have it all: an iBook, an AirPort, a DSL modem, and an ethernet network to which my Quadra 800 connects. Is this feasible? All the literature that I've read on AirPort and iBook and DSL talks about connecting the DSL modem to the ethernet port on AirPort and plugging the phone line into the other port on the DSL modem. This appears to leave no way to connect my Quadra 800. I'd like to have both a wireless connection between the iBook and the DSL ISP and access to the files on the Q800 for the iBook. I doubt that anyone is making wireless cards or antennas for Q800. If I connect the AirPort ethernet port, the DSL modem, and the ethernet port on my Q800 to an ethernet hub, will it work? I.e. can the iBook connect to the Internet via the DSL modem and can the iBook share files with the Q800?

Wizzer: >can the iBook connect to the Internet via the DSL modem....

These two angles are explicitly covered in Apple's literature – yes you can do it. (There was some concern early on that AppleTalk support wouldn't make it into final release, but apparently that's been resolved.) Your iBook is a full peer of your home LAN, whether or not your LAN happens to contain a DSL bridge or router.

The part that I've been most interested in is whether this arrangement would allow the Hardware Access Point ("Base Station") to provide shared Internet access to the Quadra on ethernet. This one hasn't been explicitly covered in any documentation I've seen online, and it might have to be answered in two parts: 1) when using the built-in modem for dial-up Internet, and 2) when using the built-in ethernet for DSL or cable routing. There's a success story for the first of these on MacInTouch, and the second may vary from service to service (because both internal and external traffic are using the same wire, and some cable and DSL hookups are less than gracious in this setup).

If you don't care about Internet access for the Quadra, you're golden – this will work splendidly. If you do, and you have the means, I'd recommend using a different means of sharing the connection. Specifically, plug the DSL bridge into a firewall or NAT router (I recommend the SonicWall/10 as reviewed in the Pi Journal a couple months ago), plug your hub into the private side of the firewall, and plug the Quadra and the Base Station into the hub. That way both your wireless and terrestrial traffic are protected from the raw DSL hookup. (He says, looking at his own home firewall and seeing that some cornball keeps trying to contact his machines with BackOrifice and PC Anywhere...)

And yes, I do realize I'm speaking gibberish. :)

Enthusius: Many, many thanks. I'll look into the solution you propose. Sounds like this might give me some experience in Internet security that will be useful.

Webster: Haven't done too much research on this . . . but I think if the DSL modem is also doing the routing of packets for you then you can use the Airport only for wireless stuff and not for the other features. The other CPUs can be hooked up to the ethernet hub and (assuming File Sharing is properly enabled on the 8600) the iBook can log on to it.

Wizzer: >I think if the DSL modem is also doing the routing of packets for you then you can use the Airport only for wireless stuff and not for the other features.

Distinction—You can set up an address translating router on a single segment, and you'll have packets going across your LAN using both public and private addresses. You may have seen discussion of this in the IPNetRouter documentation: the result is less secure, and less efficient with ethernet bandwidth, as each packet is effectively repeated back onto the line with its addresses modified.

Now, if your DSL device is in fact a router, it'll ignore all those packets using private addresses, and it'll direct only the public ones out the DSL. This will be the case most often in business lines with blocks of addresses.

If your DSL device is merely a bridge, it'll indiscriminately shuffle traffic forward and back – as an extension of your home network into your ISP's. This will be the case most often in residential lines with just one or maybe a handful of addresses, usually dynamically-assigned and often changing.

" 'Encrypted' is a nice, nebulous word. When you use Stuffit to compress a file, you are encrypting it. Unfortunately, EVERYONE ON YOUR SUBNET has the SAME equipment to decrypt your packets. So don't count on this. For anything."

Case Study—On my home network, as of a few days ago, I now have a DSL bridge. Attached to that bridge I have a SonicWall/10, which is further connected to an ethernet hub. Also on that hub are several Macs of various vintage and a LocalTalk<-> Ethernet bridge. That LT<->EN bridge, significantly, also serves as a MacIP gateway. (I finally got that FastPath 5 working correctly, and I've retired the PowerBook that was performing this task.) What's a MacIP gateway? Well, for these purposes it's very similar to an AirPort Base Station: it actually routes packets back and forth between ethernet and another medium, in this case LocalTalk instead of wireless.

The key point here is that I can have some pretty complex routing going on, and assign addresses however I wish across different network segments, while each bridge or router device handles the translations from one place to the other. Because only packets intended for the public network are showing up on the wire between the firewall and the DSL bridge, this doesn't cause any alarm to me or to my ISP. (And one could substitute in a Quadra with two ethernet cards and LocalTalk, run IPNetRouter and LocalTalk Bridge, and thus serve the same core functions of the two devices I've mentioned above using one box.) Just so long as the only traffic going across that last wire to the DSL bridge is intended for public consumption – because it's going for a ride.

Analysis—Now, a quick glance at the AirPort Base Station tells us that it only has that one single ethernet port. It can (still unconfirmed) happily perform address translation and routing between A) ethernet, B) wireless, and C) modem in any direction – but it can't isolate the personal traffic using the private addresses from the public traffic using the public address. At least not for any devices connected to the same ethernet LAN. That is, the Base Station can act like IPNetRouter does with a single ethernet port, but it can't act like IPNetRouter does with multiple ethernet ports. Stands to reason, port by port.

So it's likely you -can- use the Base Station as your NAT [network address translation] router, but if you do you won't do so as discreetly or as securely as you would with a split network. You'd still want to look into a firewall, or at least a two-port router which is configured to only pass traffic back and forth for the one public address that the Base Station uses to talk to your ISP.

Extra Credit—And for today's brain teaser, consider this: that two-port router that you'd need for solving this conundrum could in fact be another AirPort Base Station! How could this be? The answer is written between the numerals below.

1I2t3 4t5a6l7k8s9 0t1o2 3t4h5e6
7D8S9L0 1v2i3a4 5e6t7h8e9r0n1e2t
3I4t5 6t7a8l9k0s1 2t3o4 5t6h7e8

9L0A1N2 3v4i5a6 7r8a9d0i1o

Weird, huh? Cheers!

Webster 2: I've been discussing this with my wife. She wants a laptop next year and to be able to surf from the living room. I was thinking to put AirPort cards in the G4 (to be bought) and laptop, get the firewall unit that the TCS uses (name slips my grasp for the moment), and use that to share the one IP address I get from Bell Atlantic. The Firewall will sit between the ADSL modem and the ethernet hub.

Another solution would be to put routing software on the G4 (assuming that it will route between the Ethernet network and AirPort) but that would not provide me with the firewall I would want if my G4 had to be on all of the time so she could use the laptop without going up 3 flights to turn on the G4.

Wizzer: There've been two recent issues crop up with Open Transport 2.5.2 (as it appears in Mac OS 9) and with Open Transport 2.5.1 (as it appears in the special preinstalled version of Mac OS 8.6 on iBooks, G4's and such).

One, confirmed by Apple and promptly addressed by a downloadable extension file <http://asu.info.apple.com/swupdates.nsf/artnum/n11559>, allows someone on the Internet to send the affected Mac a small packet and have the Mac automatically respond with a large packet. What this means to you is that someone might use your Mac as an amplifier to flood someone else's machine with nonsense. If your Mac is only connected to the Internet via a modem, then your machine won't be of much use in such an attack unless it's being used as one of many such amplifiers. However, one thing that could happen is that someone could swamp your own outgoing modem channel with outgoing nonsense, in which case the denial of service affects you directly.

The other, unconfirmed but plausible, could be used by someone to freeze up your Mac while you're connected to the Internet. Both will be addressed in right and proper form with the next upcoming official update to Mac OS 9.

The reason I bring this up is to discuss the discovery of these weaknesses, as they hit the major Mac and Internet news sites at the same time right around New Year's Day Y2K. If you're the network administrator for your office, you should probably have heard about these through CERT, or BugTraq, or Slashdot or something as part of your ongoing security awareness. If you're at home using a Mac and a PPP, DSL, or cable connection to the Internet then your situation is probably a little different. Might your system or network be affected? How should you respond to this news?

Well, first of all, Apple quickly produced a fix for the first weakness, so the appropriate thing to do is to read the accompanying nontechnical Read Me and install the extension on any of your Macs that run one of the affected systems. (As a sidebar, there's some evidence and much speculation to suggest that this extension has a memory-related bug that may lead to conflicts. It was, after all, written, tested, and released very quickly just prior to the beginning of a companywide holiday vacation period. But the point here is that an official patch was made available, and officially it became prudent to install the fix. A more permanent solution is imminent, and should something like this pop up again one can rightly assume they'll expend more time and resources on testing before releasing the fix – Y2K Eve was just a bad time to let people fret!)

Secondly, would you have been affected? Let's look at the first one. None of the available devices or software we've been discussing would have blocked the amplification attack on its own. Not the SonicWall at one extreme, and not IPNetRouter or a Linux-based firewall at the other extreme. The fix needs to come from the affected systems themselves.

Let's look at the second one. Any firewall or address-translating router will protect you from this by default. But direct connections via modem, DSL, or cable modem will not. Not until Apple releases an official fix, that is, and I hope they take enough time to address both issues and cause no new ones.

Note, by the way, that if you're using IPNetRouter or similar on an affected system then IPNetRouter won't be able to help you from that. It'll protect only the private systems on the inside, but the router system itself remains exposed to the elements. And if someone can crash your IPNetRouter system, then that denies service to the private systems behind it.

Enthusius II: I am interested in getting a cable modem, once they are available in my area. I was wondering, however, what kind of security issues there are (if any). Would I need to do something along the lines of establishing a firewall? And how would I do this? I keep financial information on my computer, and this in particular, concerns me.

Webster 3: One strategy would be to simply ensure Guest access is disabled (which, in the MacOS, is the default).

There are software (IPNetRouter) and hardware (Sonic and others) firewalls. Recent Pi Journals have had articles on these. IPNetRouter is $90 shareware. The Sonic is about $380 to

$400, although competitors have recently been advertised at $200 or so.

Webster 4: >I was wondering, however, what kind of security issues there are....

(Webster 3) mentioned the "what to do about it" stuff, so I'll focus on the issue itself: yes, there are security concerns. When you subscribe to DSL or "cable modem" service, you are essentially putting your home on a "neighborhood" network subnet. Because of the way TCP/IP addresses are allocated, you can have no more than 255 addresses on a subnet, and some of those addresses are lost for reasons I won't address. So figure an efficient DSL or cable company will try to cram 250 or so subscribers on a subnet.

If you set up a network in your office, you presumably know everyone else on the network. They, presumably, share the same goals you do: success of your organization. (If they don't, they should become _former_ coworkers.)

But you probably don't know your DSL or cable neighbors. Not everyone in your neighborhood will be a subscriber, and the distribution of subscribers and non-subscribers is random. So you are essentially allowing a computer network in your home that is shared by *anyone*. The cable or DSL company presumably has security measures installed at "network central" to protect you, in some small measure, from the "outside." But there really isn't any practical way to protect you from your neighbors.

For those running Windows, this is bad. Windows has a huge mass of security holes, and your average Windows user, or even your average Windows guru, has not a clue how to plug them. Add to this the occasional neighborhood hacker who has installed Linux, discovered it isn't' good for anything (not much productivity software or games) _except_ hacking, and Pandora's box is opened.

Macintosh users running System 7.X through Mac OS 9.X are quite secure, provided they take reasonable precautions. First, file sharing and such is turned *off* by default. Don't turn it on without a good reason. Second, always – always – set a non-blank password in file sharing, even if you never intend to share a thing. A non-blank password is orders of magnitude harder to overcome than no password at all. Third, if you do use file sharing, turn off Guest access.

If and when you go shopping on the Internet, use a 128-bit version of your browser. If and when a vendor asks for anything you consider confidential (anything _you_ consider confidential, which may go well beyond your VISA number to include names of kids, siblings, birthdays – anything) – make sure you are on a secure page. (In Netscape, look for a closed lock in the bottom left corner of the page.) Don't send confidential information via E-mail.

This last one – confidential information via E-mail – is the one most often violated. E-mail is too convenient to be paranoid about it. So be creative: if you send your Aunt Joan some piece of information that you consider confidential, send it in pieces. She wants access to your Apple iDisk account? Send the name in one message, the password in another.

Are there really hackers out there? I get one to five attacks on my home LAN every day, dutifully reported by my firewall.

Webster 3: I just now remember being told the cable "modems" our cable company sells provide encryption, meaning everything between your home and their end of the network is encrypted. That would seem to go a long way towards stopping anyone on your subnet from peeking at your data as it passes back and forth.

> "Some versions of Mac OS, and most versions of Windows, can be crashed remotely. Just like that: I toss you a hand grenade through the wire, your system catches it and crashes, and you're none the wiser."

This particular brand cable modem also is set up to block incoming packets that weren't requested by your machine, another step towards security.

Webster 4: "Encrypted" is a nice, nebulous word. When you use Stuffit to compress a file, you are encrypting it. Unfortunately, EVERYONE ON YOUR SUBNET has the SAME equipment to decrypt your packets. So don't count on this. For anything.

>This particular brand cable "modem" also is set up to block incoming packets....

Again, this is very easy to overcome – on the same subnet. Packet spoofing is a bit difficult on different domains, but anyone can do it on the same subnet. The encryption and packet filtering, however, don't address denial of service attacks at all, which are the most frequent type of hacker attacks.

Wizzer: >There are software (IPNetRouter) and hardware (Sonic and others) firewalls. Recent [Pi] Journals have had articles on these. IPNetRouter is $90 shareware.

Running IPNetRouter on a Mac on an exposed network won't make that Mac any bit more secure than it was without the software. So, to protect your Mac you'll need a separate device acting as a go-between from an exposed network to a private network. That's a firewall. And yes you can build that device from a spare Quadra or something running IPNetRouter.

Simply turning off Guest access can be pretty effective. Slightly less effective with Mac OS 9; significantly less effective with Mac OS X; absolutely begging for trouble with Windows.

Enthusius III: I have a cable set-up, CTVM. It is one-way. The other way is by phone line. My phone line is only connected when I am doing something on the web. I guess that hackers can only send me stuff over the cable but can't get anything back except when I am actually on with the phone line active. Am I right about that? If so, then I am guessing that my door is open to hackers only a small part of the day. Is this at least partial security?

What is this "denial of service?"

Webster 4: >What is this "denial of service?"

Exactly what it sounds like. You want to watch old Superman reruns. Your brother has the remote, and keeps flipping it to a French language special on worms. That's denial of service.

The simplest denial of service attack: some yahoo (in the Swiftian sense) sets up a machine to constantly ping your IP address. So your computer constantly responds to those pings, preventing you from using your machine for any other purpose. That's denial of service: they prevent you from doing whatever it is you want to do.

Wizzer: Some versions of Mac OS, and most versions of Windows, can be crashed remotely. Just like that: I toss you a hand grenade through the wire, your system catches it and crashes, and you're none the wiser.

Some versions of Mac OS will respond to a carefully-doctored small packet on the way in by sending an innocuous large packet in response. Given that your incoming pipe is usually fatter than your outgoing pipe, I can use this behavior to not only keep your machine occupied addressing my whims instead of yours, but to actually clog up your outgoing pipe to where you can no longer use it to request pages or do anything normal. Worse, I can use the same behavior to make your machine flood somebody selse's incoming pipe which might be smaller, like a modem. Now *you're* denying someone else service.

These are examples from a broad category of hacker attacks, differentiated from the better-known system cracker infiltrations by giving them a collective name. Unless you want to read a shelf full of books on exactly how TCP/IP works at a sufficient level as to understand and anticipate the boundary conditions where its ambiguity can be turned against itself, suffice it to say that people are still exploring ways to misuse the system, and you can be a victim or a pawn without someone having to break into your system or steal anything.

Enthusius V: Are DSL & cable equally vulnerable? I heard that cable was easier to penetrate. Appreciate it if you could elaborate on firewalls, or direct me to some info on it.

Webster 4: >Are DSL & cable equally vulnerable?

Both are pipes. In theory, a hacker could attack a dial-up PPP link to Explorer, and give you grief that way. But it doesn't give you many bonus points in the hacker world because (a) the link goes away when the user kills their modem and (b) the target on the other end can't be too important because, if it was, it wouldn't be a PPP link.

Penetration is only an issue if you have something you want to protect, like medical or legal records, proprietary company information, or something that you can't do without, such as financial records or the draft of your Great American Novel. I don't think cable is "easier" to penetrate; most of the anti-cable modem crowd is anti because they don't like cable TV firms; next to HMOs and law firms, they are the most despised organizations in the US.

Penetration requires *work* and work is anti-hacker. In the "old days," hackers would devote weeks to doing silly, trivial things that people told them were impossible. But most of the "hackers" today are using programs written by others, and doing nothing more complex than pushing a button. These "hackers" are very good at *denying* service, or crashing machines; they lack the skills or the work ethic to actually break into anything.

Hacking has changed drastically since the days when Woz spent a couple months breaking the world record for calculating e to the most decimal places – on an Apple IIe. Hackers today are more like the nihilists who toss trash out of car windows and spray paint racist slogans on churches.

Frustrating vandals is always a pleasure. ■

Surfer Beware III: Privacy Policies without Privacy Protection

December 1999
Electronic Privacy Information Center
www.epic.org
<http://www.epic.org/reports/surfer-beware3.html>

"While it is not surprising that all the sites collected personally identifiable information, it is worth noting that there are many popular websites, such as cnn.com and washingtonpost.com, that do not routinely collect personally identifiable information."

Merry e.xmas Droppings

THIS PAST holiday season was one that provided a great growth spurt to e.commerce and proved to be a boon to those who availed themselves of webcommerce services. The questions raised in this article have to do with the electronic droppings we left behind in our search for the perfect gift. How well will the online merchants we visited protect all the things they learned about us because we visited their sites? And just what does that phrase, protecting our privacy, encompass? Try:

—fair information practices, which are a set of principles that enable you to maintain control over personal information you left behind;

—profile-based advertising, also known as online profiling, used to collect information about your online behavior, and is considered by some a form of online surveillance; and,

—tracking your online behavior within a single site via cookies.

At another time, it would be good for us to become more aware of the growing gap between the way electronic privacy is interpreted within the European Common Market and the United States. It is not a trival difference.

About EPIC

The Surfer Beware series is produced by the Electronic Privacy Information Center (EPIC), a public interest research center in Washington, D.C. It was established in 1994 to focus public attention on emerging civil liberties issues and to protect privacy, the First Amendment, and constitutional values. EPIC is a project of the Fund for Constitutional Government.

Executive Summary

In this survey the Electronic Privacy Information Center (EPIC) reviewed the privacy practices of the 100 most popular shopping websites on the Internet. We focused on shopping sites because many consumers are now buying online and we wanted to assess whether online merchants are adequately protecting consumer privacy. For all 100 sites, we looked for compliance with "Fair Information Practices" -- a set of principles that provide basic privacy protection. We also looked at whether commercial sites utilized profile-based advertising, and employed cookies in their website operations. Both of these controversial techniques have been the subject of recent investigations. We found that 18 of the top shopping sites did not display a privacy policy, 35 of the sites have profile-based advertisers operating on their pages, and 86 of the e-commerce operations use cookies. Not one of the companies adequately addressed all the elements of Fair Information Practices. We also found that the privacy policies available at many websites are typically confusing, incomplete, and inconsistent. We concluded that the current practices of the online industry provide little meaningful privacy protection for consumers.

1. Introduction

Surfer Beware III is EPIC's third survey of online privacy protections. In 1997, we conducted the first formal review of web site privacy policies and practices. "Surfer Beware: Personal Privacy and the Internet" found that few sites had privacy policies, though anonymity was playing an important role in protecting online privacy. In 1998, we conducted the first evaluation of self-regulation to protect online privacy. "Surfer Beware II: Notice is Not Enough" found that the new members of the Direct Marketing Association failed to follow the organization's own guidelines for privacy protection. In this survey we looked at the privacy policies and practices of the 100 top shopping web sites. (1)

Privacy remains one of the greatest concerns of online users and will become particularly acute as many users make their first foray into online shopping this holiday season. (2) While most online retailers agree that the protection of consumer privacy is important for the future of electronic commerce, much debate has centered on the appropriate approach to protecting consumer privacy online. Businesses in the United States have generally said that industry self-regulation, as opposed to the establishment of legal rights for consumers, will protect online privacy. Even though a survey conducted earlier this year found that less than 10 percent of websites offer a baseline privacy policy, self-regulation continues to govern privacy protection on the web. (3)

In this survey we looked more closely at the adequacy of privacy practices found on the 100 most popular shopping websites as listed by 100hot.com, which tracks website popularity by the number of times homepages are viewed in a sample of over 100,000 Internet users worldwide. While there are other Internet rating services, we took 100hot.com as a reasonable benchmark (which we also used in the original 1997 survey). (4)

We evaluated privacy protection with respect to the Fair Information Practices, which are a set of principles that enable individuals to maintain control over personal information held by organizations and are the basis for many privacy laws in the United States. (5) For the purpose of this survey, we looked at several elements of the Fair Information Practices, including the ability to find the privacy policy of an e-commerce site, whether personal information is collected and used with the consent of the consumer, whether the consumer is able to access and correct such information, whether the information is limited to those uses for which the information was given, and whether the purposes for which information will be used are specified.

Profile-based advertising, also known as online profiling, is a technique that marketers use to collect information about online behavior of Internet users and to facilitate targeted advertising. (6) Profile-based advertising could easily be considered a form of online surveillance. Profile-based advertising relies on "cookies," identifying tags that are stored on the computer of a person who visits a web site. These cookies are often placed on computers without the knowledge of individuals when banner advertisements appear. Actually clicking on a banner advertisement is not necessary to generate a cookie. In order to track the growth of this advertising model, we recorded the number of sites that use banner advertisements belonging to known profile-based advertisers.

Along with online advertisers, many other sites utilize cookies in the confines of their own sites. Cookies can be used for tracking online behavior within a single site. They are also used for many other purposes such as for common shopping carts that list items to be purchased or for counting the number of unique visitors to a site. While we did not investigate the purpose for all cookies, we did note which sites enable cookies.

2. Methodology and Results

To evaluate websites' privacy standards, our survey examined 1) whether personally identifiable information (PII) was collected; 2) whether a privacy policy was displayed on the website's homepage; 3) whether a privacy policy was displayed on all pages collecting personal information; 4) whether the site was part of a licensing group; 5) whether the site required opt-in consent for all collection and subsequent use of personal information; 6) whether the site allowed users access to view and correct personal information; 7) whether the use of personal information was limited; and 8) whether the privacy policy specified all purposes for which personal information would be used. We also investigated two other questions -- whether advertising networks were presenting banner ads on the sites' pages and whether a site used cookies.

The complete results [questions asked and e.commerce company answers] can be found at <http://www.epic.org/reports/surfer-beware3_app.html>

We based our evaluations on the information available to the user as stated in the privacy policy or elsewhere on the website.

2.1 Does the site collect personally identifiable information (PII)?

We found that all 100 sites collected personally identifiable information such as name, mailing address, e-mail address, or telephone number. None of the sites required users to disclose personal information when entering or browsing through a site, but all collected such information for purchases or other business transactions.

While it is not surprising that all the sites collected personally identifiable information, it is worth noting that there are many popular websites, such as cnn.com and washingtonpost.com, that do not routinely collect personally identifiable information. Websites that provide news and information generally do not to know who their visitors are. In our 1997 survey we wrote, "We thought the widespread practice of allowing anonymous browsing, even on the most popular web sites, was an important indicator of how privacy is actually protected on the Internet. By avoiding the collection of personal information, websites encourage users to visit sites." In 1997, we also said that in "the physical world, we note that very few stores require the col-

lection of personal information before allowing someone to enter." It appears that commercial activity on the Internet is driving the increased collection of personal data.

2.2 Does the site have a link to a privacy policy on its homepage?

We noted whether a website displayed its privacy policy on its homepage. The homepage is often the first page a user views when entering a website, and the privacy policy should be easily accessible from this location so that users will know how their personal information will be used before they begin shopping for an item.

Fifty-one sites provided a link to the privacy policy on their homepage. Eighteen sites had no privacy policy. We gave sites that lacked a privacy policy a rating of "N/A" (not applicable) for the remainder of the survey questions. We also gave "N/A" ratings to EastBay because the site was continually busy, and when we finally gained access to the site, the page where transactions are completed would not load.

2.3 Does the site have a link to a privacy policy on all pages collecting PII?

We also observed whether a website linked to its privacy policy on all pages that collect PII. It is important for Internet users to know how their personal information is used and to be able to quickly find the policy when they are asked to disclose personal information.

Thirty-five sites displayed a link on all pages that collect personal information.

2.4 Does the site belong to a industry self-regulation program?

We noted whether sites were part of an industry self-regulation program, such as TRUSTe or the Better Business Bureau Online. Nineteen sites in the survey were members of these programs. Membership in one of these programs does not assure privacy protection for consumers, but it is an indication of a company's willingness to develop a privacy policy and to learn more about privacy issues.

We plan to evaluate the effectiveness of these programs in the coming year.

"In this survey we looked more closely at the adequacy of privacy practices found on the 100 most popular shopping websites as listed by 100hot.com, which tracks website popularity by the number of times homepages are viewed in a sample of over 100,000 Internet users worldwide."

2.5 Does the site have an opt-in (consent) for all collection and use of PII?

We also considered whether websites offered an opt-in policy. Such a policy would require a company to gain consumer permission before any collection or use of personal information. Opt-out policies, on the other hand, allow companies to make use of information as they wish unless a consumer notifies the firm that they do not want their personal information collected or used. Consumers favor opt-in policies. By way of example, CDUniverse has an opt-in policy: "If you answered 'Yes' to the question 'May we occasionally send you email promotions,' we keep you up-to-date via email." J.Crew has an opt-out policy: "We occasionally make our customer list available for one-time use by a few carefully screened firms -- should you prefer not to get their mailings, please let us know."

Twenty-three sites solicited "opt-in" consent by consumers before a company's subsequent collection and use of their personal information.

2.6 Does the site allow access to view and correct personal information?

One of the long-standing goals of privacy protection is to ensure that individuals are able to review the information about them that is collected by organizations. The purpose of this is to ensure that information is accurate and complete. It is also to allow individuals to better assess the actual data collection practices of the organizations that collect personal information.

In the access category, we determined whether websites allowed consumers to view and correct their personal information, including their name, mailing address, e-mail address, or telephone number. Many companies also collect more detailed information, such as shopping preferences or purchase history, but do not make this information available to consumers. For example, eBay states in its privacy policy: "We automatically track certain information about you based upon your behavior on our site. We use this information to do internal research on our users' demographics, interests, and behavior to better understand and serve our users." Since many sites do not disclose whether they store information about customer behavior, however, we did not evaluate access with respect to such a criterion.

Thirty-two sites allowed users access to view and correct personal information, such as mailing address,

e-mail address, or telephone number.

2.7 Does the site limit use of the information to its original purpose?

We surveyed whether sites limited the use of the personal information to the transaction specified. This is important because most consumers intuitively expect that personal information will be used for a limited purpose. Companies should not use individuals' personal information for purposes unnecessary to complete the original transaction. While the release of non-personal aggregate or summary information about customers may not invade personal privacy, the unrestricted use of personallyidentifiable information does. We noted that the privacy policy of eToys demonstrated a strong commitment to limiting the use of customer information: "We do not sell, rent, or loan any identifiable information regarding our customers to any third party. Any information you give us is held with the utmost care and security, and will not be used in ways to which you have not consented." This could be in part because Congress enacted the Childrens Online Privacy Protection Act of 1998 and created specific privacy obligations for companies that routinely interact with young people. Lands' End, however, does not limit its use of personal information, as it states in its privacy policy: "We do just one thing with the information you provide that you may not expect. If you purchase a product from us, there is a chance that we will exchange your name with another company whose products and services might interest you." This policy was similar to many others that essentially tell customers personal information will be widely used for whatever purpose the company wishes.

Twenty companies appeared to limit the use of personally identifiable information to those required for the transaction.

2.8 Does the site specify the purposes for all information collected?

We included the purpose specification category to show whether sites inform users of every way in which their personal information will be used. We believe that if a company fails to explain the reason that personal information is collected, consumers will be unable to make a meaningful decision about whether to provide personal information. Some sites declare that they reveal information to third parties but are then extremely vague in their explanation of how this information is subsequently used. For example, Garden.com states in its privacy policy: "Garden.com may choose to share select information with [strategic business] partners to enhance the customers' experience. Customers may choose at anytime to be removed from this list While Garden.com only chooses reputable strategic partners who adhere to similar policies we in no way are responsible for the actions or policies of these partners." On the other hand, Bluemountain.com describes exactly what it will do with personal information: "When you send one of our greetings, we use the information you give us to customize the greeting with your name and the recipient's name and to deliver email notifications to you and the recipient."

Fifty-eight sites specified the purposes for collection and use of personal information.

2.9 Does the site allow profile-based advertising to operate on their pages?

Our research also examined profile-based advertising by surfing with a browser set to warn the user before a cookie is sent. All cookies not coming directly from the site that was being visited, but instead from an advertiser, were noted. Since our search did not visit all the pages within a single site, it is possible that more advertisers were present than were found. We also found a wide variation in whether or not privacy policies mentioned the presence of third-party advertising. Some sites, such as Ticketmaster Online, mention that online advertisers are operating, but mischaracterize what those advertisers do. For example, one company that does profile individuals -- Doubleclick -- operates on the site, but the Ticketmaster privacy policy states: "Your specific user habits within our site will not be disclosed to any third parties." Only one site, Autobytel.com, mentions the advertiser operating on its site by name, links to the advertiser's privacy policy, and provides a way to opt-out of that advertising network.

In total, 35 sites allowed advertising by advertising networks and few mentioned that such advertising was taking place.

2.10 Does the site utilize cookies?

We also noted whether sites were using cookies. Cookies can be used to enhance online shopping by tracking a series of purchases by one customer during a single visit to a website. Without cookies, it would be difficult, but not impossible, to store several purchases in an electronic shopping cart and enable payment. Cookies also provide a technique for merchants and advertises to track consumer preferences and purposes over many visits to many different websites. It is this second use of cookies, sometimes referred to as "tracking" or "profiling," that raises privacy concerns.

While most privacy policies did note the use of cookies, at least one site that claimed not to utilize cookies was actually using them. It is possible that additional sites were using cookies in ways not detailed in their privacy policies. Macys.com's privacy policy includes a mention of cookies: "Although it is not used currently on this website, Macys.com hopes to begin using 'cookie' technology in the

future." In the course of purchasing an item, Macys.com did in fact attempt to place cookies on the browser.

Eighty-six of the sites surveyed used cookies. Two sites -- Tower Records and Kenneth Cole -- did not allow users to visit their sites without generating cookies.

2.11 Other Findings

In our survey of the top 100 e-commerce sites, we found privacy policies that were often confusing, incomplete and inconsistent. The wide variation of these policies might frustrate consumers who are trying to determine which websites provide the best privacy protection.

3. Conclusions

Taken as a whole, we found that more sites are posting privacy policies than did when we conducted the first formal review of website policies in 1997. We have also seen the rise of new associations to promote the development of privacy policies and encourage industry awareness of privacy issues. But when we looked closely at these policies, we found that they typically lacked the necessary elements of Fair Information Practices and were unlikely to provide meaningful privacy protection for consumers. The presence of a privacy policy, unfortunately, does not always ensure privacy protection.

At the same time, marketers are using new and more sophisticated techniques to track consumers on the Internet. Profile-based advertising marks a sharp departure from traditional business practices which allowed companies to advertise products and services and still permit consumers to retain some privacy. In the world of radio, television and print advertising, for example, information flowed freely from businesses to consumers but little personally identifiable information was ever collected. In the online world, every consumer inquiry about a product and every ad viewing may quickly become incorporated into a detailed profile that will remain hidden from the consumer.

On balance, we think that consumers are more at risk today than they were in 1997. The profiling is more extensive and the marketing techniques are more intrusive. Anonymity, which remains crucial to privacy on the Internet, is being squeezed out by the rise of electronic commerce. Industry backed self-regulation has done little to protect online privacy. We believe that legally enforceable standards are necessary to ensure compliance with Fair Information Practices. And new techniques for anonymity are necessary to protect online privacy. Until such steps are taken, we have to repeat our advice for the third consecutive year -- "Surfer Beware." ■

> "Cookies also provide a technique for merchants and advertises to track consumer preferences and purposes over many visits to many different websites. It is this second use of cookies, sometimes referred to as 'tracking' or 'profiling,' that raises privacy concerns."

Footnotes

1. "Surfer Beware: Personal Privacy and the Internet," conducted in 1997, looked at the 100 most popular websites. The report is available at http://www.epic.org/reports/surfer-beware.html. "Surfer Beware II: Notice is Not Enough" examined the privacy practices of the members of the Direct Marketing Association in June 1998. It can be found at http://www.epic.org/reports/surfer-beware2.html.

2. Forrester Research conducted a survey of 100,000 Internet users in September 1999 and found that 67 percent were very or extremely concerned about online privacy and an additional 24 percent were somewhat concerned.

3. A study conducted by the Georgetown Internet Privacy Policy Survey in January 1999 (http://www.msb.edu/faculty/culnanm/gippshome.html) found that less than 10 percent (32) of the 361 sites examined addressed the most basic privacy principles.

4. http://100hot.com/help/methodology.html

5. The most robust and comprehensive set of Fair Information Practices are described in the 1980 Organization for Economic Co-operation and Development (OECD) Privacy Guidelines. These can be found at http://www.oecd.org/dsti/sti/it/secur/prod/PRIV-EN.HTM

6. The National Telecommunications and Information Administration (NTIA) of the Department of Commerce and the Federal Trade Commission recently held a workshop on this topic. EPIC filed a series of comments that are available at http://www.epic.org/privacy/internet/Online_Profiling_Workshop.PDF and http://www.epic.org/privacy/internet/profiling_reply_comment.PDF.

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washington Apple pi general meetings

April
Adobe
InDesign
April 22, 2000

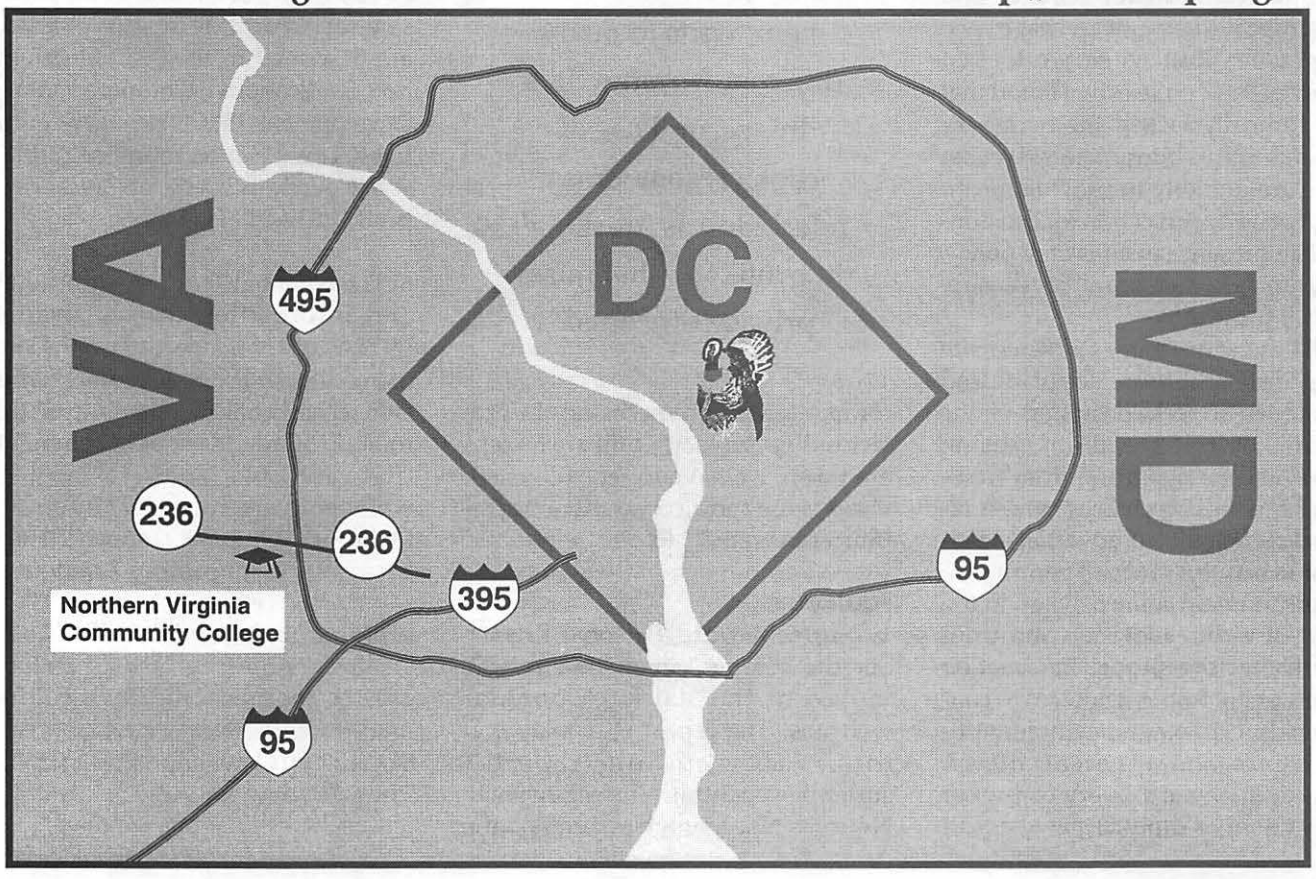
March
Corel
Print Office
March 25, 2000

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

Getting to NoVa:
take Exit 6 West
onto VA 236
(Little River Turnpike)

2000
Toward a new century with
Washington Apple Pi

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



Macintosh Tutorials

General Macintosh Classes

Introduction to Macintosh

This class is meant not only for the new user, but also for anyone who wants to learn more about the basic operation of the Macintosh. This class is also recommended for Macintosh owners who are new to System 8.0 and above or those who have never really learned all the things that the Mac OS has to offer to the computer user. In addition to start up, sleep and shutdown procedures, the student will learn how a computer works and common Macintosh terminology. The Finder and its basic operation will be fully covered. This discussion will include the menu bar, Apple menu and the Application Switcher. Students will learn how to access and use the built-in help application on the Macintosh. Error messages, dialog boxes, icons, folders, and view options will be discussed. You will learn the basics of word processing and text formatting. Copying, cutting, pasting, dragging and dropping will also be covered. Basic system and mouse maintenance will be included. The fundamentals of searching for files will also be covered. You should review the programs Macintosh Basics and Mouse Basics prior to attending the class.

Prerequisite: None.
Number of Sessions: Two.
Price: Standard Members: $70.00, Associate Members: $100.00, Non-Members: $100.00
Instructor: Pat Fauquet and Jim Ritz

Evening Set 1
3/6/00 and 3/13/00 6 pm - 9 pm
Evening Set 2
5/1/00 and 5/8/00 6 pm - 9 pm
Day Set 1
3/7/00 and 3/9/00 9:30 am - 12:30 pm
Day Set 2
3/21/00 and 3/23/00 9:30 am - 12:30 pm
Day Set 3
4/3/00 and 4/5/00 9:30 am - 12:30 pm
Day Set 4
4/4/00 and 4/6/00 9:30 am - 12:30 pm
Day Set 5
4/18/00 and 4/20/00 1 pm - 4 pm
Day Set 6
5/1/00 and 5/3/00 9:30 am - 12:30 pm
Day Set 7
5/2/00 and 5/4/00 9:30 am - 12:30 pm
Day Set 8
5/16/00 and 5/18/00 1 pm - 4 pm

Intermediate Macintosh

Intermediate Macintosh will follow up on the concepts taught in Introduction to Macintosh. You will learn more advanced Macintosh skills and terminology including contextual menus and advanced finder options, the custom installation of software and updating software applications. Students will learn about memory error messages and how to deal with them. Hard drive organization, archiving and backup strategies will be discussed. An introduction to managing system extensions and control panels will be covered along with virus protection, system enhancements and Macintosh "housekeeping" philosophies. Students will learn how to use Disk First Aid, how to deal with system crashes and what causes them. They will also learn to use the new Find program, Sherlock, to find files on the computer, to find text phrases in saved data and to find items on the Internet. All students are encouraged to take Introduction to the Macintosh before attending this class.

Prerequisite: Introduction to Macintosh
Number of Sessions: Two
Price: Standard Members: $70.00, Associate Members: $100.00, Non-Members: $100.00
Instructor: Pat Fauquet and Jim Ritz

Evening Set 1
4/3/00 and 4/10/00 6 pm - 9 pm
Day Set 1
3/14/00 and 3/16/00 1 pm - 4 pm
Day Set 2
4/11/00 and 4/13/00 1 pm - 4 pm
Day Set 3
5/9/00 and 5/11/00 1 pm - 4 pm
Day Set 4
5/22/00 and 5/24/00 9:30 am - 12:30 pm

Advanced Macintosh

Advanced Macintosh will follow up on the concepts taught in Intermediate Macintosh. In this hands-on class students will learn how to back up the essential data and settings files, then how to install, update and upgrade system software. They will learn the difference between clean and dirty system installations and when to use them. They will learn how to de-install software, manage system conflicts, and troubleshoot crashes. Software such as Norton Utilities, Tech Tool Pro, Conflict Catcher, Spring Cleaning, and Disk Warrior will be demonstrated and used to fix computer problems. Hard drive initialization, partitioning, defragmentation and optimization with be discussed and demonstrated. Students are encouraged to bring their CPU to use in class to actually troubleshoot and update their own computers. iMac owners should bring their computer, keyboard and mouse. All others should bring only their CPU and modem. If students own Zip Drives or Super Drives they should also bring them to back up important data. All students are strongly encouraged to complete both Introduction to Macintosh and Intermediate Macintosh prior to enrolling in this

class.
Prerequisite: Introduction to Macintosh and Intermediate Macintosh
Number of Sessions: Two
Price: Standard Members: $70.00, Associate Members: $100.00, Non-Members: $100.00
Instructor: Pat Fauquet and Jim Ritz
Day Set 1
3/28/00 9:30 am - 4 pm
Day Set 2
4/25/00 9:30 am - 4 pm
Day Set 3
5/23/00 and 5/24/00 9:30 am - 12:30 pm

iVisit iMac (with *"NEW"* evening hours)

Take a working tour of the software included on the iMac.

This two part, six hour class will introduce the various pieces of software included with the iMac. Students will learn how use the assistants and templates included with AppleWorks to perform tasks such as writing a letter; making a computer address book, flyer or certificate, and printing an envelope. They will learn how to send and receive a fax from their iMac and begin using Quicken to balance their checkbook. They will learn how to make a favorites list in Internet Explorer, use the address book and send a file to someone in Outlook Express. They will also learn how to edit a photo with Kai's Photo Soap, install and look up items in the World Book Encyclopedia and use the Williams-Sonoma cookbook. Students will also learn how to use Adobe PageMill 3 to make a personalized start page on their computer. Strategies to win with Nanosaur and protect children with the EdView Internet Safety kit will also be shown. **New:** This class now includes the new Kid Pix Deluxe, a children's graphics and animation program.
Prerequisite: Introduction to Macintosh
Number of Sessions: Two
Price: Standard Members: $70.00, Associate Members: $100.00, Non-Members: $100.00
Instructor: Pat Fauquet and Jim Ritz
Evening Set 1
3/20/00 and 3/27/00 6 pm - 9 pm
Evening Set 2
5/15/00 and 5/22/00 6 pm - 9 pm
Day Set 1
3/21/00 and 3/23/00 1 pm - 4 pm
Day Set 2
4/18/00 and 4/20/00 9:30 am - 12:30 pm
Day Set 3
5/16/00 and 5/18/00 9:30 am - 12:30 pm

Internet and Telecommunications

"NEW" Apple iTools

Apple Computer released a suite of free Internet-based tools for MacOS 9 users at MacWorld San Francisco 2000. Since then, users have learned how to access these tools even if you are not using OS 9. Come learn to set up and use these exciting tools to have a virtual hard drive that is accessible anywhere, make a home page without any additional software, share family photos and QuickTime movies, send internet greeting cards, find great Internet sites, and even protect children from questionable content. This is an introductory three hour class.
Prerequisite: Introduction to the Macintosh or a good knowledge of the Mac OS and its interface. **Number of Sessions:** One
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00
Instructor: Pat Fauquet, Jim Ritz
3/8/00 1 pm - 4 pm
4/3/00 1 pm - 4 pm
5/3/00 1 pm - 4 pm

"NEW" Make a HomePage with Apple iTools

In this three hour class we will make and view home pages using Apple's new Homepage iTool. No other software is needed for this project. Please bring pictures, movies, and content that you would like to include on your Homepage.
Prerequisite: Apple iTools and Introduction to the Macintosh or a good knowledge of the Mac OS and its interface.
Number of Sessions: One
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00
Instructor: Pat Fauquet, Jim Ritz
4/10/00 1 pm - 4 pm
5/17/00 1 pm - 4 pm

Introduction to the Internet

This three hour class, intended for users of all Internet browsers, will introduce you to the World Wide Web. Learn what the various buttons on the browser screen do. Learn to customize the browser window to meet your visual needs. Learn how an Internet address works and how to deal with error messages that appear. You will learn how to use Sherlock, search engines, directories and metasearch sites to find the information you seek. Learn how to capture pictures and text from the internet and how it print web pages. This class is appropriate for all users of the Internet including American Online customers. It is suggested that all participants enroll in one of the e-mail courses to complete their introduction to the Internet.
Prerequisite: Introduction to the Macintosh or a good knowledge of the Mac OS and its interface. **Number of Sessions:** One
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00
Instructor: Pat Fauquet, Jim Ritz
3/9/00 1 pm - 4 pm
4/10/00 9:30 am - 12:30 pm
5/8/00 1 pm - 4 pm

E-mail with Netscape Communicator

This class will deal specifically the e-mail application with Netscape Communicator. Students will learn how to send, receive, reply to and forward email. They will learn how to

save mail into folders, how to use and manage the address books and how to send mail to groups of people. They will learn how to attach files to e-mail messages and how to deal with the attached files that they receive. Students will also learn where their email and address books are stored and how to back them up.
Prerequisite: Introduction to the Macintosh or a good knowledge of the Mac OS and its interface. **Number of Sessions:** One
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00
Instructor: Pat Fauquet, Jim Ritz
3/10/00 1 pm - 4 pm
4/12/00 9:30 am - 12:30 pm
5/10/00 1 pm - 4 pm

E-mail with Microsoft Outlook Express

This class will deal specifically the e-mail application Microsoft Outlook Express. Students will learn how to send, receive, reply to and forward email. They will learn how to save mail into folders, how to use and manage the address books and how to send mail to groups of people. They will learn how to attach files to e-mail messages and how to deal with the attached files that they receive. Students will also learn where their email and address books are stored and how to back them up.
Prerequisite: Introduction to the Macintosh or a good knowledge of the Mac OS and its interface. **Number of Sessions:** One
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00
Instructor: Pat Fauquet, Jim Ritz
3/29/00 9:30 am - 12:30 pm
4/14/00 9:30 am - 12:30 pm
5/10/00 9:30 am - 12:30 pm

E-mail with America Online

This class will deal specifically the e-mail application with America Online. Students will learn how to send, receive, reply to and forward email. They will learn how to save mail into folders, how to use and manage the address books and how to send mail to groups of people. They will learn how to attach files to e-mail messages and how to deal with the attached files that they receive. Students will also learn where their email and address books are stored and how to back them up.
Prerequisite: Introduction to the Macintosh or a good knowledge of the Mac OS and its interface. **Number of Sessions:** One
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00
Instructor: Pat Fauquet, Jim Ritz
3/10/00 9:30 am - 12:30 pm
4/12/00 1 pm - 4 pm
5/12/00 9:30 am - 12:30 pm

Downloading, Installing and Using Files and Software From the Internet and from CD's.

Learn how to find files and software on the Internet. Learn how download them, how to install and use them. Learn about Macintosh viruses, and how to combat them. This one Session class is intended for students who have completed Intro to the Internet and an e-mail class and who want to learn more about the various software resources that are available on the Internet. These will include software, fonts, Sherlock and contextual menu plug-ins, Applescripts, and system resources.
Prerequisite: Introduction to the Macintosh or a good knowledge of the Mac OS and its interface. **Number of Sessions:** One
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00
Instructor: Pat Fauquet, Jim Ritz
3/29/00 1 pm - 4 pm
4/14/00 1 pm - 4 pm
5/12/00 1 pm - 4 pm

Microsoft Office 98

Microsoft Word for Office 98

This class will introduce the student to the fundamentals of the Microsoft Word for Office 98 word processing software package. The course is designed for those with very limited or no previous knowledge of Word. Topics that will be covered include: reviewing the screen elements of a basic new Word document (the standard and formatting toolbars and the menu bar); setting default options such as spell checking and document editing choices, default font selection that are applied to a basic document; creating, editing, saving and deleting a simple Word document; using the on line help function; simple formatting using tabs and setting margins; creating a simple table; and reviewing pre-defined templates such as the letter template that are included in Word.
Prerequisite: Introduction to the Macintosh or a good knowledge of the Mac OS and its interface.
Number of Sessions: One
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
Instructor: Cordell Ratner
3/2/00 7 pm - 10 pm
4/6/00 7 pm - 10 pm
5/4/00 7 pm - 10 pm

Excel for Microsoft Office 98

This class will start by covering opening, saving and retrieving an Excel workbook, and then will discuss definitions of a workbook, a worksheet, and a cell. Next we will review the objects on a typical worksheet screen including those items on the menu bar, the standard toolbar, and the status bar. The student will then be assisted in creating a simple Excel worksheet that will be used to teach the concepts of entering, editing, formatting, and deleting data (text, number, time, date, and formula) in a cell, along with learning techniques on how to navigate within the worksheet and between worksheets. Other topics for which

the student created worksheet will be used are for: inserting and manipulating rows and columns, creating basic formulas of addition, subtraction, multiplication and division in a worksheet using the function wizard, adding comments to a cell, using the fill command to enter a data series, making the screen easier to view using splitting and column header freezing techniques, adding, deleting and naming worksheets within a workbook, and creating headers and footers printing of selected cells and an entire workbook. Finally, we will create basic charts using pie and bar charts as examples, and will wrap up by discussing worksheet style techniques along with reviewing the set of workbook options in the tools menu.

Prerequisite: Introduction to the Macintosh or a good knowledge of the Mac OS and its interface, **Number of Sessions:** One.

Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.

Instructor: Cordell Ratner

3/16/00 7 pm - 10 pm
4/20/00 7 pm - 10 pm
5/18/00 7 pm - 10 pm

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. **Number of Sessions:** One

Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.

Instructor: Pat Fauquet and Jim Ritz

3/16/00 9:30 am - 12:30 pm
4/6/00 1 pm - 4 pm
5/4/00 1 pm - 4 pm

AppleWorks and Newsletters

Learn how to use the newsletter assistant in AppleWorks to easily produce newsletters for a variety of audiences. In this class participants will produce a basic newsletter, then learn how to use the Mac OS stationery pad function to speed the production of future newsletters. Basics of graphic design, layout, typography, writing style and suggestions for economical reproduction will also be covered. This class is not an introduction to AppleWorks.

Prerequisite: Introduction to the Macintosh or a good knowledge of the Mac OS and its interface. In addition Introduction to AppleWorks class or a good working knowledge of another word processing application is suggested before attending this class.

Number of Sessions: One

Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.

Instructor: Pat Fauquet

Attendance in an Introduction to AppleWorks class or a good working knowledge of another word processing application is suggested before attending this class.

4/7/00 1 pm - 4 pm

AppleWorks (a.k.a. ClarisWorks) Advanced

In this class we will take AppleWorks to a new level! Learn how to make easy outlines, lists, and

Some Specifics

- **Where:** Unless otherwise stated, all tutorials sponsored by Washington Apple Pi are given at the office located at 12022 Parklawn Drive, Rockville, Maryland.
- **Fees:** $35 per class for members and $50 per class for non-members. Pre-registration and Pre-payment must be made to hold a seat.
- **Who:** All family members living within the household of a member, are members.
- **Class Size:** Class size is limited to 6 students per class.
- **Instructor Cancellation:** If a class is cancelled by the instructor, all students will be notified of the cancellation. Please check your home answering machine if you have not given a work number for notification.
- **Student Cancellation:** A cancellation must be received 72 hours before the class time. Cancellation may be made only via telephone during business hours or via email to the email address of office@wap.org. The office does not have an answering machine—only an announcement machine.

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.
Number of Sessions: One
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
Instructor: Pat Fauquet
4/7/00 9:30 am - 12:30 pm
5/5/00 9:30 am - 12:30 pm

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.
Number of Sessions: One
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
Instructor: Pat Fauquet
Call office for dates

Moving up to AppleWorks 6

Come learn about the changes and new features that are found in AppleWorks 6. Learn how to use the new buttons, menus and tools to produce word processed documents, databases, spreadsheets, graphics and slideshows. Learn how to access the templates and clip art installed with the program and the array of additional items that will be available on the internet. This class is intended for those who have completed Introduction to AppleWorks or who have a good understanding of the previous versions.
Prerequisite: Introduction to AppleWorks or previous experience with AppleWorks
Number of Sessions: One
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00
Instructor: Pat Fauquet
3/3/00 1 pm - 4 pm
4/5/00 1 pm - 4 pm

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.
Number of Sessions: One
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
Instructor: Pat Fauquet
3/1/00 9:30 am - 12:30 pm
5/1/00 1 pm - 4 pm

Web Page Development

NEW Adobe GoLive

Learn to use Adobe GoLive to create web pages and sites. This software package allows pixel-level control of graphics and ease in adding JavaScript actions. This class is intended for those who have completed the "Web Page Workshop" and "Preparing Graphics for the Web" or their equivalents. It is an introductory course and is not intended for advanced users of the program.
Prerequisite: Web Page Workshop and Preparing Graphics for the Web or a good knowledge of web site development
Number of Sessions: Two.
Price: Standard Members: $70.00, Associate Members: $100.00, Non-Members: $100.00
Instructor: Pat Fauquet
3/31/00 9:30 am - 4 pm
4/27/00 9:30 am - 4 pm
5/31/00 9:30 am - 4 pm

* *NEW** Preparing Graphics for the Web

In this all-day workshop students will learn how to make and prepare backgrounds, headlines, clip art, but-

tons, rules, dividers and animations for web pages. They will also learn how to construct graphic sets. These will be made using AppleWorks, GraphicConverter and Adobe PhotoDeluxe. Students will learn about the GIF, JPEG and PNG formats and when to use them. 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 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.
Number of Sessions: Two.
Price: Standard Members: $70.00, Associate Members: $100.00, Non-Members: $100.00
Instructor: Pat Fauquet
4/28/00 9:30 am - 4 pm

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.
Number of Sessions: Two.
Price: Standard Members: $70.00, Associate Members: $100.00, Non-Members: $100.00
Instructor: Pat Fauquet
3/30/00 9:30 am - 4 pm
4/24/00 9:30 am - 4 pm
5/30/00 9:30 am - 4 pm

Consumer Graphics and Multimedia

Introduction to Scanners

This class will cover basic scanner operation. Students will learn how to scan photos and text. They will learn how to adjust the scanner settings to produce better scan and how to prepare a photo file to attach it to an e-mail message. They will learn how to use scanned photos in text documents and how to scan directly into applications such as Adobe PhotoDeluxe and Kai's PhotoSoap. They will learn how to use OCR software to turned scanned text into a text file.
Prerequisite: Introduction to the Macintosh or a good knowledge of the Mac OS and its interface, Introduction to the Internet and an E-mail class.
Number of Sessions: One.
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
Instructor: Pat Fauquet
3/8/00 9:30 am - 12:30 pm
4/19/00 1 pm - 4 pm
5/17/00 9:30 am - 12:30 pm

Introduction to Digital Cameras

Learn how to use your digital camera to its best advantage. Learn how to download photos you've taken and how to bring them directly into applications like Adobe PhotoDeluxe and Kai's PhotoSoap. Learn about cropping and improving image quality. Learn how to decrease file size so that you can send photos via e-mail.
Prerequisite: Introduction to the Macintosh or a good knowledge of the Mac OS and its interface, Intro to the Internet and an E-mail class.
Number of Sessions: One.
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
Instructor: Pat Fauquet
4/19/00 9:30 am - 12:30 pm

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 non-technical 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, **Number of Sessions:** One.
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
Instructor: Pat Fauquet
3/6/00 1 pm - 4 pm
4/17/00 9:30 am - 12:30 pm
5/15/00 9:30 am - 12:30 pm

Working with QuickTime 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 panorama 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, Intro to the Internet and an E-mail class.
Number of Sessions: Two
Price: Standard Members: $70.00, Associate Members: $100.00, Non-Members: $100.00
Instructor: Pat Fauquet
3/2/00 9:30 am - 4 pm
5/19/00 9:30 am - 4 pm

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.
Number of Sessions: One.
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
Instructor: Pat Fauquet
3/6/00 1 pm - 4 pm
4/17/00 1 pm - 4 pm
5/15/00 1 pm - 4 pm

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 Sessions. 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.
Prerequisite: Introduction to the Macintosh or a good knowledge of the Mac OS and its interface.
Number of Sessions: One.
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
Instructor: Pat Fauquet
5/22/00 1 pm - 4 pm

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.

Other Educational Opportunities

Apple Computer Inc., Reston, VA 703-264-5100 or www.seminars.apple.com

Mac Business Solutions 301-330-4074 or www.mbsdirect.com

Micro Center 703-204-8400 or www.microcenter-education.com

Piwowar & Associates 202-223-6813 or www.tjpa.com

Carol O'Connor 703-430-5881, graphicsss@ao.com

Prerequisite: Introduction to the Macintosh or a good knowledge of the Mac OS and its interface, **Number of Sessions:** One.
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
Instructor: Mary Keene
Call Office for Dates

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, **Number of Sessions:** One.
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
Instructor: Pat Fauquet
3/1/00 1 pm - 4 pm
5/5/00 1 pm - 4 pm

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 good knowledge of the Mac OS and its interface, **Number of Sessions:** One.
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
Instructor: Pat Fauquet
3/3/00 9:30 am - 12:30 pm
5/26/00 9:30 am - 12:30 pm

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 the Macintosh or a good knowledge of the Mac OS and its interface. **Number of Sessions:** One.
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
Instructor: Pat Fauquet
5/26/00 1 pm - 4 pm

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 ☐ Visa/MasterCard

Card Number _____

Card Expiration _____ Signature _____

Mail registration and payment to the above address.

Please fill in the name(s) and date(s) of the class(es) that you wish to attend.

Class #1 _____

Class #2 _____

Class #3 _____

Class #4 _____

Class #5 _____

Class #6 _____

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 good knowledge of the Mac OS and its interface.
Number of Sessions: One.
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
Instructor: Pat Fauquet or Jim Ritz
4/13/00 9:30 am - 12:30 pm
5/11/00 9:30 am - 12:30 pm

Professional Graphics and Desktop Publishing

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. **Number of Sessions:** One.
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
Instructor: Paul Schlosser
3/1/00 6 pm - 9 pm
4/5/00 6 pm - 9 pm
5/3/00 6 pm - 9 pm

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: Introduction to the Macintosh or a good knowledge of the Mac OS and its interface, and Adobe PhotoShop Part 1 or a knowledge of the topics covered in that class.
Number of Sessions: One.
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
Instructor: Blake Lange
3/7/00 7 pm - 10 pm
4/11/00 7 pm - 10 pm
5/9/00 7 pm - 10 pm

Adobe Illustrator: Mastering the Bezier Curve

Illustrator has become so feature laden that current tutorials are just overviews of the product; they do not present the fundamental workings of the program in depth. The Bezier curve, otherwise known as a vector graphic, is the primary building block of Illustrator (and many other drawing programs). Mastering its use will fundamentally change your view of the power of the program. The way the Bezier curve works, however, may seem alien at first with its points and vectors, an approach to illustrating many find counter-intuitive. This class will start with creating and editing the simplest lines and curves and build up to the creation of complex illustrations. By the end of the class you should feel comfortable editing any illustration based on the Bezier curve, for example, all clip art that has the eps extension in its file name. This class serves as both a good introduction to the program and as a help for the more advanced user to become adept in its use.
Prerequisite: Introduction to the Macintosh or a good knowledge of the Mac OS and its interface. **Number of Sessions:** One.
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
Instructor: Blake Lange
4/25/00 7 pm - 10 pm

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. **Number of Sessions:** One.
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
Instructor: Paul Schlosser
3/22/00 6 pm - 9 pm
5/24/00 6 pm - 9 pm

Quark Xpress Clinic

This class is for those who have

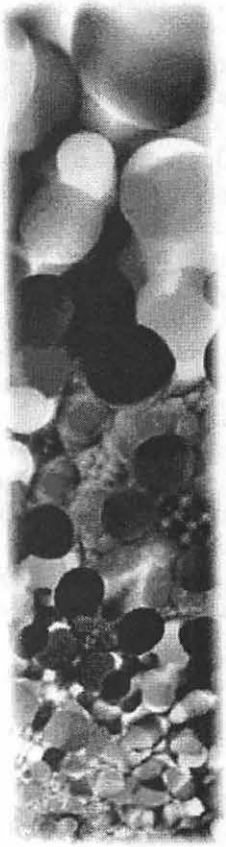
some experience with Quark Xpress and are interested in asking questions and having specific problems discussed. The class will be a question and answer format and you should bring along on floppy a sample of things for which you would like help. Prerequisite: Introduction to Quark Xpress or a good knowledge of the basics of Quark Xpress and its interface. The price is $35 ($50 for non members).
Prerequisite: Introduction to the Macintosh or a good knowledge of the Mac OS and its interface, and a good working knowledge of Quark Xpress
Number of Sessions: One.
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00, .**Instructor:** Paul Schlosser, **Call office for dates**

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. **Number of Sessions:** One.
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
Instructor: Blake Lange
3/21/00 7 pm - 10 pm
5/23/00 7 pm - 10 pm

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 the Macintosh or a good knowledge of the Mac OS and its interface and Introduction to PageMaker or a good knowledge of the basics of PageMaker and its interface. **Number of Sessions:** One.
Price: Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00. **Instructor:** Blake Lange, **Call office for dates**



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MWNYC

MacWorld New York City 2000

Second Annual Washington Apple Pi MacWorld Bus Trip
Thursday July 20, 2000

Bus Departs: 5:00 am
Bus Returns: 12:00 to 12:30 am, Friday July 21Meet at commuter lot at the corner of Rockville Pike and Montrose Road
Cost: $60.00 cash or check, $62.00 Visa or MasterCard. Send the slip below with your check to:
WAP MacWorld Trip
12022 Parklawn Drive
Rockville MD 20852
Included: Bus fare, MacWorld Expo Ticket to the Exhibit Floor only (does not include workshop sessions), and Continental Breakfast on the bus.
Reservation Deadline: June 1, 2000. Space is limited so reserve you seat NOW
Additional Information: Pat Fauquet (pat.fauquet@tcs.wap.org) or Mary Keene (e.mkeene@tcs.wap.org).

The Washington Apple Pi bus trip to MacWorld New York will take place on Thursday, July 20. The bus will depart from the commuter lot at the corner of Rockville Pike and Montrose Road in Rockville at 5:00 am. It will arrive at the Javits Center at approximately 10:00 am. The bus will depart Javits Center at 6:30 p.m. An in-route stop for dinner will be made about 1-1/2 hours later. The bus should return to Rockville between 12:00 and 12:30 a.m. on Friday, July 21.

Travel will be in an air-conditioned bus with on-board restroom, VCR, and reclining seats. If accommodations for disabilities are needed, please call Pat Fauquet at 703 550 7423 as soon as possible. The price will be $60.00, including your admission to the MacWorld. A continental breakfast including juice will be served on the bus. No coffee will be available. A stop for dinner will be made at about 8:00 p.m. The cost of dinner meal is not included in your ticket.

Name_____
Address_____
City, State, ZIP_____
Home Phone _____Work Phone_____Email_____
Washington Apple Pi member? Yes _____No_____
_____Here is my check. Please reserve _____ seats on the bus for me at $60.00 each.
_____Here is my credit card information. Please reserve _____ seats on the bus for me at $62.00 each. Name as it appears on card_____
_____MasterCard ___Visa Card
Card number _____Expires_____

DoubleClick

Dave and Derek:

MY HP6460 computer came with preinstalled MS Windows 98 and many other programs. It has a Floppy drive, CD-ROM drive and a CD-Rewriteable drive. I'm having trouble with the backup. It will back up to the floppy drive but it takes many floppies. Is there a way to back up to one of the CD drives? If so, how do I do it? If not, is there a better way? Thanks, Lloyd

DAVE:

Happy New Year, Lloyd! Your backup solution is already installed in your computer. It's that CD Rewritable drive. Derek talked about them extensively in our December 20th column but suffice it to say, that is your best answer for backing up your hard drive. In the good old days, you could actually consider doing floppy backups (I did many of them going back as far as my Apple ///'s hard drive). But with floppies on the waaaay out and hard drives hitting the gigabyte range, you need something more efficient - and something easier - to do your backups for you.

If you didn't have a CD Rewritable drive, a DAT tape drive designed for backups would also be a good choice, or an ORB 2+ gig drive (for example). But your CD RW drive is your ticket to great backups. All you need to do is make sure you have the right software. You mentioned that the 6460 came with "many other programs." I suspect one of them will allow you to make a backup of your drive onto CDs. Check for a program by Adaptec (www.adaptec.com) as one possibility (the Windows version is called EZ CD Creator; the Mac version is Toast 4.0). Most of these programs make it easy too - literally just drag and drop the files you want to backup. Each CD holds a little more than 600 Mbs of information, so it will still take a few to do a complete backup if you have a large hard drive. But the disks are cheap, they're available everywhere, and they sure beat using floppies - something I wouldn't even want to think about in the 21st Century.

Of course, I heard a rumor that Derek was still using a cassette machine from Radio Shack to do his backups - something to wile away the time while he holds little baby Samantha in the middle of the night...

DEREK:

That is no rumor. I really DO have a cassette drive. I've owned three over the years, one for my Sinclair ZX81 PC with it's whopping 1K of RAM, TRS-80 Model 1, and a Commodore VIC20. My first floppy drive was definitely a memorable moment. Anyway, if you put the data tapes in the tape player they make a wacky sound that unfortunately DOESN'T help little Sammie G. sleep!

I think everyone should have a CD-R or CD-RW. They are very useful. They can transport lots of information. I've started making large Powerpoint presentations complete with video and sound that will easily fit on a CD. This CD can act as a backup if your laptop blows up. Take them to another computer (make sure it has the same version of Powerpoint or include the viewer), copy the CD to the hard drive temporarily, run the presentation, delete the files and be gone.

We've also started using CDs to provide sales literature. We create a presentation in either Powerpoint or Macromedia Flash and save it to CD. Send it to a client and impress! Backups are great on CD. At the end of the year we copied all of our accounting information to CD and took it offsite for storage. We now have a permanent record of our accounting data that we know we will be able to read in any computer for a few years to come.

When it comes to backing up your information, here are the things to remember. One, most people don't do it. If you perform your backups

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you are ahead of the game. Next, make sure the backup is complete and ACTUALLY TEST IT! Actually restore a file to make sure it works. We find that many people (usually using automated tape backup software) aren't actually backing up the data they think they are.

Tape is the best media for backing up large amounts of data quickly, automatically, and inexpensively. CD is perfect for files that need to be moved or read on another machine. For businesses, we recommend BOTH tape and CD-R or CD-RW. For home users, we recommend CD-R or CD-RW. Why? We find that most home users don't use tape drives because they turn their PCs off and don't really rotate the tapes like they should. But the CDs are easy to use and easy to backup. Businesses benefit from having tape because of the reduced cost per megabyte and the ability to backup their entire systems overnight. In our office we have a dedicated PC that performs tape backups. It has 3 tape backup drives (two 24GB and one 8GB tape drives in it.) We also have two CD-Rs and one CD-RW drive that we use for lots of things.

So Lloyd, get some blank CDs and start recording!

Dennis, our reader who had an earlier CD-R question, sent us these comments:

Wow, you guys are fast! I never expected to see my question answered in print less than a week after submitting it, but there it was in yesterday's paper. Thanks for the quick response and for the very comprehensive answer. I will definitely take your advice and try the Ricoh Platinum CD-Rs. Just for info, I have mostly been using the blue Verbatims you mentioned, and so far I haven't seen any compatibility problems with them (although the drive that wrote them doesn't seem to be able to copy them, but I think that's a different problem). Sorry, I'm pretty weak on Bing Crosby material. Those pre-1955 artists are even before my time! But thanks again. -Dennis

(Optional, Anne:)

Dave: Yah, yah - but Cosby was around long after 1955... remember that Christmas show with Sting? ■

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 Associates Inc. (www.hlp.net), a full-service computer network and Internet firm serving business headquartered in Falls Church, VA, and with offices in Washington, Baltimore and New York City.

Dave and Derek can be reached by email at doubleclick@jrnl.com; by snail mail in care of The Journal, 6408 Edsall Road, Alexandria, VA 22312; or by fax at 803-846-8366. While all questions and comments are welcome, we cannot promise individual responses.

The Toys of Tokyo

THE APPLE product matrix lives in four boxes. For consumers, there is the iMac and the iBook. For the professionals, there is the G-series tower and the forever-named PowerBook G3. New products, whether all new or product improvements, get one of those names with some moniker attached to the end for differentiation. For example, the PowerBook G3 has carried that generic name through too many different iterations, or the iMac adds a "Special Edition" etc.

The Tokyo MacWorld show was the right venue for the unveiling of three changes to products in the matrix and one important new offering that is getting little coverage over here. Japan has been a large and loyal market to Apple. Apple did the right thing by using that show for its announcements. The PowerMac G4 family saw a return to its original speed offerings. The long-rumored update to the PowerBook line appeared, and Apple unveiled both an update to the iBook, and a new "Special Edition" iBook akin to the popular iMac DV "Special Edition". The orphan, based on Western press coverage, was an announcement that Mac OS X will include six "highest-quality" Japanese fonts. That is no small accomplishment, and is due to some neat new methodologies found within Mac O X.

"Two FireWire (IEEE 1394) ports replace SCSI; thus the new moniker. Gone is the ability to use a PowerBook as an external SCSI hard drive; instead, you can use it with your other FireWire computer as an external FireWire hard drive. You can also can boot a PowerBook from a FireWire device."

PowerBook (FireWire)

The last one was called the "Bronze Keyboard" edition; now meet "FireWire". It feature faster chips and FireWire ports, but no radical new case design. The G3 processor runs at 400MHz or 500MHz. Add lots of backside cache and a 100MHz system bus and the top of the line should be 25% faster than the previous fastest PowerBook G3.

Two FireWire (IEEE 1394) ports replace SCSI; thus the new moniker. Gone is the ability to use a PowerBook as an external SCSI hard drive; instead, you can use it with your other FireWire computer as an external FireWire hard drive. You can also can boot a PowerBook from a FireWire device.

PowerBook Trivia

The screen is the same 14.1-inch display. What is new is the chip powering it—the ATI RAGE Mobility 128. This is the latest iteration of the RAGE Mobility chip in the iBook. It supports two displays, and like the "Bronze" model, "FireWire" can drive an external monitor in addition to the built-in LCD screen. You can view a 21-inch monitor in millions of colors.

A 6X DVD-ROM drive is standard and can play DVD-ROM, DVD-Video, and DVD-RAM discs, plus CD-ROMs at up to 24X speed. You can watch Rear Window, but you won't be able to make your own; neither FinalCut Pro nor iMovie is included. The other built-in are pretty much the same. There are two Universal Serial Buses; thus, you can listen to digital audio on one, while using the other to do real work. The hot-swappable expansion bay accepts most PowerBook G3 "Bronze" modules. There's a slot for the AirPort wireless networking card; antenna is built-in.

iBook "Special Edition"

This marks the first update of the iBook. They now come with 64MB RAM and a 6GB hard drive. All other internal features are the same. Externally, the new iBook "Special Edition", like the iMac with the same name, comes in a graphite-colored enclosure. The iBook Special Edition features a 366MHz PowerPC G3 processor, which should make it about 20% faster than the blueberry and tangerine models. One wag we trust offered that anyone who found the iBook just a little too slow or too casual to use in their daily lives should flip for the iBook Special Edition.

"The Power Macintosh G4 processor configurations return to what Apple originally intended: 400MHz, 450MHz, and 500MHz. In addition, these G4s can be started from a FireWire drive. Other configuration details remain unchanged."

Power Macintosh G4

The Power Macintosh G4 processor configurations return to what Apple originally intended: 400MHz, 450MHz, and 500MHz. In addition, these G4s can be started from a FireWire drive. Other configuration details remain unchanged.

Japanese Typography

In an ideal venue, Apple revealed how it intends to exploit one of Mac OS X's advantages to the benefit of its growing Japanese customer base. Mac OS X will include six "highest-quality" Japanese fonts created for it by one of Japan's leading typography firms.

Typography in idiographic languages is extremely difficult. Most operating systems aren't prepared to deal with fonts of 3MB each or larger, and most text handling is still explicitly designed for alphabetic text with occasional application support for ideographic languages in limited situations. To give you a sense of scale, each idiographic font is more than seventy times as large as a standard US English font. Mac OS X can takes full advantage of the Unicode standard that allocates two bytes of storage for each "character," not the single byte of storage used by ASCII and most computer systems. Unicode makes it just as easy to display ideographic text as any other kind of text, with full feature parity in all text handling features. That opens a door for significantly improved text in Japanese, Chinese, and Korean systems.

Now What?

Apple is known to want to release new products or freshen its existing line in a nine-ish month cycle. Depending on how you count, Tokyo unveiled one new and two freshened products. On to New York. D.C. ■

We would like to thank the technical wizards at MWJ, The Serious Journal for Macintosh Users™ for their assistance in preparing this article. Sample copies of MWJ and subscription information are available at <www.gcsf.com>.

ANNOUNCEMENTS

Please remember to Vote. Ballot will be in your next journal.

Computer Camp is coming. See page 19 for particulars.

We're going to MacWorld again. Ad giving full information is on page 77.

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- Open Transport 2.6 (for OS 8.6)
- iMac Troubleshooting Guide

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Applications
- AppleWorks 5.0.3 [convert ClarisWorks 5.x to AppleWorks]
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- Palm Pilot 2.5 plus accessories
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USB TelePort Modem 1.0.2

Essential Utilities
- Adobe Acrobat Reader & Search 4.5
- Adobe Type Mgr 4.5.2
- Apple Disk Copy Utility 6.3.3 w/AppleScripts
- Apple System Profiler 2.1.2
- BBEdit Lite 4.6
- Disinfectant 3.7.1
- WormScanner 2.3
- Agax 1.3
- MIME Decoder
- GURU 2.8
- Aladdin Expander & DropStuff 5.5
- TechTool 1.1.9
- PowerMac Emergency Handbook

- **Not So Essential Stuff**
  - Apple Memory Guide 10-99
  - DragThing 2.7
  - File Smiler 1.6.1
  - Greg's Browser 2.6.1
  - KeySwapper 1.1.1
  - MagicBullets 2.0.1
  - Network Watching Tools
    - IPNet Monitor
    - MacTCP Watcher 2.0
    - Mac TCP Tracer
    - Trawl 1.0.2
    - AGNetTools
    - OTTools 1.1
  - Prestissimo 1.0.1
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Internet Essentials
- Anarachie Pro 3.7
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- Netscape
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- Fortify 2.2.2
- NiftyTelnet 1.1

- **Less Essential - More Optional**
  - AMP Radio
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  - URL Manager Pro 2.6
  - ViaHTTP 1.7.3
  - Web Devil 4.6.1

Apple @ The Flicks
- tank.mov
- hal04.mov

Fun Diversions
- Goofy Golf Deluze
- Gravite 2.0
- Quarters
- Nanosaur Updater 1.1.9

New Member's Sampler

Loot for Little People
- Al's Coloring Book
- Coloring Book
- Fun Stuff
- KidCalc!
- KidGrid
- Match Card
- WackIt!

Loot for Teens
- Customize a Mac
- Gopher Golf
- MacChess
- Pando Calendar
- Short Circuit
- Snood
- Squark
- World Maps
- X-Words

Loot for Big People
- Consult
- Copy Paste
- DayMap
- Euro to $ Converter
- Flash-It
- Heritage
- Hi's Universal Saver
- iStroke
- KeyStrokes
- MacChart
- MiniAddress
- Office Pro
- People Lister
- Simple Calendars
- Stock Trader

Apple Server Updates:
- AppleShare Client 3.8.6
- AppleShare IP 6.3
- Macintosh Manager 1.2.2
- Network Assistant 8.5 and 8.6
- Remote Access 3.0.2

- ATI Video Update 1.0: improve 2D and 3D acceleration for machines with the ATI Rage 128 card or onboard ATI RAGE Pro chips.
- **Disk Tools 7.6 & 8.5:** if you have lost yours, here are the replacements. 7.6 contains images for 6800 series and PPC series; 8.5 is PPC only.
- **DVD SW Update 2.0:** is a software-only DVD player. It is not compatible with the DVD hardware found in a G3, PB G3, or PM G4 (PCI graphics) series machine.
- **Final Cut Pro 1.2.1:** includes the application update, FireWire 2.2.2, QuickTime FireWirer DV extensions and the latest ATI drivers. You even get the new .pdf users manual.
- **FireWire 2.2.2:** replacement driver for those with an incompatability that prevents serial devices, like digital cameras, from making an initial connection.
- **Game Spockets 1.7.3:** includes the complete set of draw, input, net and sound sprockets.
- **GV 56K Updaters:** supports the internal modem in a G3 (Desktop or Minitower, or PM 6500 series). It is NOT for the iMac or B&W G3. Study the ReadMe carefully.
- **iMovie 1.0.1 Updater:** converts your installed iMovie 1.0 to the new and improved 1.0.1 version.
- **Indo Video 5:** QuickTime 3 or 4 PowerMac users can compress and play back Intel Indeo Video 5 in QuickTime files.
- **LocalTalk Bridge 2.1:** is an unsupported tool used to share LocalTalk-only devices, such as some LaserWriter pritners on an Ethernet network. It is provided solely as a convenience by Apple.
- **Modem Updater 1.3.5:** updates the internal modem which came with the Powerbook G3 Series or iMac computer.
- **OpenGL 1.1.2:** enables your computer to display 3D graphics using applications designed to take advantage of OpenGL.

OS 9 Enhancements:
- Open **Transport Update 2.6:** Open Transport 2.6 addresses DHCP issues in Mac OS 9.0 and prevents Macintosh computers from being used in certain types of Denial of Service (DoS) issues. Check the ReadMe to see if this update will work with your setup!
- Audio **Update 1.2:** improves USB audio support for Mac OS 9.
- Software **Update 1.1:** will make it faster for Apple to deliver software updates to you via the Internet.

PB G3 Series Updates:
- Battery **Reset 2.0:** addresses a situation that may occur with some PowerBook G3 Series and iBook computers in which the battery, while in the system, doesn't show up in the Control Strip, or a red X appears over the battery icon in the menu bar.
- PB G3 **DVD-ROM Updater:** eliminates a possible interuption during system startup of a CD/DVD disc is not in the drive and the drive tray is closed. For bronze keyboard models w/DVD.
- PB G3 **Series Modem 1.0.2:** squashes lots of neat little features, you don't need.
- Runtime **for Java 2.1.4:** fixes two severe bugs that affected Java applications, but not applets.

System 7.5.5:
- Mac **System 7.5.3 plus updater 7.5.5.**
- OT 1.1.2, the network and communications system software for a Mac, and OT/PPP 1.0 which enables you to connect your computer to a remote TCP/IP network [such as the Internet]. IF you are told you need them, here they are.

Apple Telecom folder which includes two versions of Apple Telecom software:
- Apple Telecom for GeoPort/Express Modems
- Apple Telecom for Serial Modems
- AppleDisplay Software v1.7.1.

USB Updates:
- USB Card **Support 1.3.5:** software extensions that provide support for USB adapters cards in PCI bus or CardBus slots.
- USB **Mass Storage Support 1.3:** supports devices that meet the USB Mass Storage Class specification. See the RedMe for details.

Adaptors
- **Griffin**
  - gPort Driver 1.1
  - iMate Driver 1.77
  - iMate Fiddler 1.51
- **Keyspan**
  - USB Serial Adapter 1.7.2
  - USB PDA Adapter 1.7.2
  - USB Twin Serial Adapter 1.2
- **Orange Micro** – Grappler SCSI Updater

Cameras
- **Alaris** – QuickVideo weeCam & Users Guide
- **Apple**
  - PhotoFlash 2.0 and 2.0.1
  - QuickTake 1.0
- **Cameraid** – v1.1.3
- **iRez**
  - v2.5F5
  - iVisit 2.2b2
  - ReelEyes 1.1.0
- **Minolta** – QuickScan 35, v2.6E

- **Olympus** – v3.0 and v3.1
- **Nikon** – Coolpix 950 [US and Europe]
- **VideoCamWorks** – v1.0

Input Devices

- **Alps**
  - Adjustable Mouse 1.01
  - GlidePoint 1.12b
  - GlidePoint Desktop 1.10
  - GlidePoint Keyboard 1.03
  - GlidePoint Portable 1.03
- **Kensington**
  - MouseWorks 5.30
  - MouseWorks 5.3.1
- **Keyspan**
  - Digital Media Remove 1.2
  - SX Pro Serial Card 1.3
- **MacAlly**
  - iMouse/Ball pro
  - PointDevice v3.1
- **Microsoft** – IntelliPoint
- **USB** – Overdrive 1.2
- **Wacom** – Tablet 4.50b1

Printers – visit each folder for a complete listing

- Apple – all
- Epson – too many
- EpsonShare Printer Sharing, v1.5
- Hewlett-Packard – all
- Lexmark - all

Scanners

- **Apple** – v4.3
- **Epson**
  - Epson Scan! II, v2.61A
  - Expression 636, ES-1000c, ES-1200c, & Action Scanner II, v2.62A
  - Expression 636 - Blue G3, v3.20A
  - Expression 836XL, v1.03E
  - EPTWN310: repairs a lockup on PPCs with the Motorola 603 CPU chip
- **Hewlett-Packard**
  - DeskScan II, v2.4
  - PaperPort Viewer
  - PictureScan
  - ScanJet 140 and 150
  - ScanJet 5p
- **Microtek** – ScanWizard 3.24.3
- **Nikon** – Scan 2.5 EN
- **UMAX**
  - VistaScan 2.4.3 SCSI
  - VistaScan 3.5.1 SCSI
  - VistaScan 3.5.1 USB
  - VistaScan 3.6.1

Storage

- **Imation** – SuperDisk 1.31
- **Iomega**
  - 5.5.1
  - IomegsWare 1.1.3
- **ORB** – v1.26
- **PACE Anti-Piracy** – USB Enabler
- **SyQuest** – Utilities 4.0.1
- **VST** – FireWire 2.0.1

USB TelePort Modem 1.0.2

- This patch does not match the titles for the other folders; so it get its own.

Essential Utilities

- **Adobe Acrobat Reader 4.0.5:** gives you access to documents in their original forms, independent of computer platform. You can view, navigate, print any Portable Document Format (PDF) file. Also included is the new Reader+Search engine.
- **Adobe Type Mgr 4.5.2**
- **Apple Disk Copy 6.3.3:** will mount disk images on your desktop, make exact copies of floppies from a disk image, convert one format to another, and create a disk image from a mounted volume or folder.
- **Apple System Profiler 2.1.2,** by Apple Computer: learn what is inside your Macintosh.
- **BBEdit Lite 4.6:** the popular plain text and HTML editor. Freeware.
- **MIME Decoder:** contains YA-Decoder 2.4.1 and YA-Decoder 3.0.1: no long will messages encoded in MIME Base64 be a mystery. Drop that pesky file on the decoder and voila. Shareware fee $15.00.
- **Stuffit Drag and Drop (5.5 Series),** by Aladin Systems: contains the two tools you need to compress (stuff) a file you wish to send to someone or open (expand) a compressed file sent to you. If you own StuffIt Deluxe, update 5.15 is here as well. Freeware.
- **TechTool 1.1.9,** by Micromat: is a handy utility which can rebuild the desktop on your computer, zap the paramater RAM, and test for damaged system files. Freeware.
- **Virus Protection:** contains Disinfectant 3.7.1, by John Norstad, the anti-virus utility for your Macintosh; Agax 1.3; and WormScanner 2.3, a utility which scans for and deletes known Autostart worm files. which will also alert you to suspicious files. These three cover most problems a Mac person might encounter. If you feel you need more comprehensive protection, look into the commercial alternatives. Freeware.
- **PowerMac Emergency Handbook,** by Apple Computer: It is in PDF format

Not So Essential Utilities

- **Apple Memory Guide,** (10-9) by Apple Computer: contains memory upgrade information for all Macintosh computers and LaserWriter printers. It is in PDF format.
- **DragThing 2.7,** by James Thomson: is an application designed to tidy up the icons littering your desktop. Shareware fee $20.00.
- **File Smiler 1.6.1:** turns your files and folders into Self-mounting Image files using Apple's Disk Copy 6.3. Freeware.
- **Finder Pop 1.8.1:** is a control panel which extends the Mac OS 8 Finder's contextual menus. It greatly simplifies navigating around your hard drive. Shareware fee: $8.00.
- **Greg's Browser 2.6.1:** Shareware fee $20.00.
- **GURU 2.8,** by Newer Technologies: is an application which provides you with information concerning memory upgrades for every model of Macintosh computer, LaserWriter printer and many Macintosh clones. There is a memory integrity test to check your RAM, a comprehensive glossary, and other neat stuff. Freeeware.
- **HandyMan 2.0.6:** allows for quick and easy access to applications, Control Panels, etc vil the Control Strip. Sure beats navigating through a bunch of folders. Shareware fee

$15.00.

• **iSearch 1.21**: lets you run literal text searches thru files, folder, disks, and CDs. Shareware fee $10.00.

• **MacArmyKnife 1.6:** It is meant to be a "catch all" for mini-utilities and things that other apps don't do. Give it a try; you might find something that one of its utilities helps you. Shareware fee $20.00.

• **MagicBullets,** by Bill Karsh: is an e-mail quoting and text styling tool. Building this CD would be a pill without it! Shareware fee is $5.00.

• **Network Watching Tools:** examine your connection to either an AppleTalk or Ethernet network. TRAWL for AppleTalk; MacTCP Watcher; MacTCP Tracer; IPNetMonitor; and Net Tools for Ethernet networks. Shareware.

• **Prestissimo 1.5:** is a Control Panel for controlling all of the Mac OS 8.5 new features such as applications palette, keyboard shortcuts, and scroll bar appearance. Freeware.

• **PrintToPDF 1.0.2:** PrintToPDF is a shareware Macintosh printer driver that creates PDF (Adobe Acrobat™) files from within your application programs. You can create PDF bookmarks to your section and subsection headings, and URLs will become hot links. Shareware fee $20.

• **TapGuard 1.0.1:** trackpads are handy, but if you tap it by accident, the inserion point moves somewhere else. TapGuard fixes that problem. Shareware fee $5.00.

Internet Essentials

• **Anarchie Pro 3.7:** is the only Internet engine that is truely native to the Macintosh platform. It will give you faster, easier and more powerful access to web & ftp sites than your regular web browser.

• Eudora Light 3.1.3: is a standalone electronic mail (e-mail) program. If you use Netscape Navigator, which does not do e-mail, you need Eudora Light. If you use Netscape Communicator, e-mail is built-into the program. A .pdf manual is included.

• **Fetch 3.0.3:** is another File Transfer Protocol (FTP) application.

• **Internet Config 2.0.2**: is designed to make your life easier by reducing the number of times which you need to enter your Internet preferences into the various preferences dialogs of all your Internet applications.

• **Mail Siphon 1.1:** is a tool to manage your mailbox. It makes it possible for you to junk mail you don't want without having to download the rest of your mail. Great way to rid of unsolicited mail. Shareware fee is a thankyou note, money, or chocolate. Well worth it.

• **MT-NewsWatcher 3.0:** is an on line (Internet) news reader. Freeware.

• **NetFinder 2.0.3**

• **Netscape**

  • Navigator 4.0.8 PPC [no built-in e-mail program]

  • Fortify 2.2.2 [adds 128-bit encryption to Netscape]

• NiftyTelnet 1.1: is a fast telnet client for the Internet. Freeware.

Less Essential - More Optional

• **AMP Radio 1.5:** is the most fully-featured and easy to use Internet Audio Receiver and MP3 player available on any computer platform existing today. That's what they asked me to write. Shareware fee: $10.00

• **Graphic Utilities**

  • GIF Converter 2.4.4

  • Graphic Converter 3.7.2

  • JPEGView 3.3.1

• **iCab 1.8:** is the sweatest, neatest, little browser out there. Still in beta, but fun to try never-the-less.

• **KeepMe OnLine:** ever experienced the annoyance of being disconnected from the Internet by your ISP when you've left your computer for a moment? Not any more! Freeware.

• **MacWasher™ 1.0 Demo:** is a very useful program for cleaning up the history of your activities on your computer. MacWasher will automatically run in the background and clean up whatever tracks you want removed, whenever you want; cache, cookies, you decide. Shareware fee $30.00.

• **Net-Print 8.1:** allows you to print any highlighted text; from your screen, from the web, from any source. You can even take multiple chunks of text and print them on one sheet of paper. Shareware fee: $10.00.

• **Netscape History 3.0:** is a utility for Netscape (and Microsoft Internet Explorer) that lets you to browse off-line (not connected to the Internet) the last Web pages visited with your browser. Images will be correctly shown, if they were loaded when the page was read from the net. Shareware fee $8.00.

• **NoCookieV2:** allows you to dis- and re-enable your cookie files. Freeware.

• **Sherlock Stuff**

• **SoundApp 2.6.1:** is a PPC freeware sound player and converter. It can play and convert sound files from a variety of computer platforms and in many different formats. It can be used with WWW browsers to play sounds. In addition, it supports Play Lists which are lists of sound files that can be saved for later usage. Freeware.

• **URL Manager Pro 2.6**

• **ViaHTTP 1.7.3:** lets you start an HTTP download, stop for some reason, and resume it at another time. This is slick and cheap. Save time and line charges. Shareware fee $5.00.

• **Web Devil 4.6.1:** Web Devil is a tool for downloading web pages and their associated images, textures, and links quickly and easily. Give it a URL and it will download all the items on the web page. It has an easy to use interface, is scriptable and recordable, and is fully multi-threaded so it won't hog the CPU. Version 4.6.1 is free; the full featured version is $35.00. ■

See ad for CD on inside back cover.

Order today!!

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1999 Index of Journal Articles

compiled by Bonnie Ashbaugh

Great thanks go to Bonnie Ashbaugh for her patience and meticulousness in putting together this, and other journal indices. To understand the index note that it is organized by volume, issue number and by page. The articles are then divided into categories. These categories include: G=General interest; F=Feature; BR= Book review; SR=Software review; HR=Hardware review; CDR=CD-ROM review. Author, (with NA=no attribution) and title of article are also included.

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AppleWorks vs. AppleWorks

by Matthew Pearce, mlpearce@slip.net

A COMMON question is "How can I transfer my old AppleWorks documents to my new Macintosh?" One of the best methods is to use AppleWorks Macintosh. Although there are versions of AppleWorks that run on three (four if you want to distinguish between the Apple IIGS and the 8 bit Apple][s) different hardware platforms, the files are surprisingly compatible. The Macintosh used to test these transfers is running MacOS 7.6.1, has the PC link control panel installed and uses the Mac Link software installed by AppleWorks Mac (5.03).

Below is a list of AppleWorks files from the various platforms that AppleWorks Mac can access. AppleWorks "Classic" (ProDOS 8 based AppleWorks for the Apple][line) Version 3.0 and earlier: These files can be imported into AppleWorks Mac without conversion. If you have PC link installed, you do not need to save these files to a HFS formatted disk. Place a write protected disk (the Macintosh saves Finder files to the disk) into the Macintosh disk drive. Start AppleWorks Mac and click on Cancel. Now select Open from the File menu and open the file you want to transfer.

Version 4.x and later: Between version 3.0 and 4.0, Claris sold the rights to AppleWorks to a third party. To make things worse, the file format changed with AppleWorks Classic v. 4. You will need to save the files as text and insert them into AppleWorks Mac.

To save a word processor document, use Apple-p to print, then select the option to print to an ASCII (text) file. Select the option "returns at the end of paragraphs." Finally, provide a name for the file.

To save a database document, use Apple-p to print, then select "create a new tables format." Press return. Select "from the current layout." Press return. Give the new format a name (the name doesn't matter as you will probably use it once). Press Apple-p again. Select print to an ASCII (text) file on disk. Select tabs between categories and returns between records (almost any database program will recognize this format).

"The transfer works both ways. Save an AppleWorks Mac file to a PC disk (don't forget the .cwk suffix). Insert the disk into the PC. Double click on My Computer..."

The database file can be saved as a DIF file or a text file. Neither format has an advantage for transferring to AppleWorks Mac. Side note: by default, AppleWorks Mac will open a text file as a word processing document and a DIF file as a spreadsheet document.

Reconstructing the database in AppleWorks Mac is a bit more difficult. Start by creating a new database file. (Click on the database icon in the tool menu bar.) Create the fields that will accept the database information. When finished, select Insert from the File menu. Insert the text file you just created. AppleWorks Mac will display two boxes at the top of the screen. The left box displays the raw data in the text file and the right box displays what fields the data is mapped into. If the mapping is wrong, you can exit, adjust your database accordingly and import again. Be sure to use the scan buttons to scan through the data and confirm the data is mapping correctly. To save a spreadsheet, hold down the Apple key and press p. Select all and press return. Save to a DIF file. When prompted for a DIF order, select columns (rows will save your spreadsheet "sideways") and press return. Type in a filename and press return.

To open the spreadsheet, start AppleWorks Mac. Click on Cancel. Pull down the File menu and select Open. Double click on the file to open it.

AppleWorks GS: Word processor documents will transfer without any conversion. Insert the disk, start AppleWorks Macintosh, click on Cancel (you don't want to create a new document), select Open from the File menu and open the file.

Spreadsheet and database: Pull down the File menu and select Save As. When the file dialog box opens, click on the button marked "ASCII." Select the location to save and provide a file name. AppleWorks GS will save the database with tabs between fields and returns between records. Recover the database using the instructions for AppleWorks Classic 4 and later.

To recover a spreadsheet saved as a text/ASCII file, start AppleWorks Mac. Open a new spreadsheet file. Select Insert from the File menu, then open the text file.

Other AppleWorks GS formats: I haven't been able to convert these yet. AppleWorks for Windows: Word pro-

"AppleWorks GS: Word processor documents will transfer without any conversion. Insert the disk, start AppleWorks Macintosh..."

cessing, spreadsheet, database and paint files transfer without having to do any conversions. Save the file with a .cwk suffix (this is the default suffix for ClarisWorks). Insert the disk (PC link will allow your Macintosh to read/write PC disks) and double click on the file icon. The first time you do this, a list of applications will appear. Choose AppleWorks (it might be called ClarisWorks) from the list.

The transfer works both ways. Save an AppleWorks Mac file to a PC disk (don't forget the .cwk suffix). Insert the disk into the PC. Double click on My Computer, double click on the A: drive, double click on the file icon. Ok, so what about transferring files from AppleWorks Mac to AppleWorks Classic? This can be done in a limited fashion. Unfortunately, the Macintosh saves text files as forked files (forked files have two pieces, a data fork and a resource fork). One method of creating a "standard" text (ProDOS cannot handle forked files) file is to open the forked file using ShadowWrite or Hermes. You can then save the file as text. There are 8 bit programs out there that can strip the data fork out of a Macintosh file. These options will be covered in next month's article.

The AppleWorks "family" of products are highly compatible with each other. With little effort, you can share files between an Apple][, Macintosh and PC. ■

From the December 1999 issue of ***GravenStein***, newsletter of the GravenStein Apple Users Group.

Apple's Tech Exchange iMac Website: Extraordinaire!

by Beverly Smith

I DISCOVERED a website a few months ago, "iMac Technical Exchange," which has been so helpful I'm thinking of marrying it. I have gone from a quivering mass of FEAR of the computer to a person who knows very little, but now knows where to go for help. But seriously, folks, this website is one where all those with an iMac actually HELP each other.

There are quite a few people there who have real expertise. And when and if there has not been a solution reached or some detail left out, an Apple Tech steps in and completes the solution.

There is very little chit-chat, because it is stated quite clearly at the beginning that this is a site for helping Apple people with their problems, not a social club. I have seen instances of people coming on to badmouth poor service or a bad experience, and either there will be no response or that person will be reminded of the aim of the site—to HELP.

At one point I noticed I had quite a few questions stacking up there (as anyone visiting the MACNJ Message Board can imagine), and sent a request for a way to delete them, as I didn't want to be greedy and take up so much room. The responses I got (3 or 4) were absolutely miraculous! The tenor was that my problems were the gold at the bottom of their panning sieve. They loved to get my problems, because it helped them build up the Technical Library, which in turn saved them time when they referred questions there for previous solutions. You

"I have gone from a quivering mass of FEAR of the computer to a person who knows very little, but now knows where to go for help."

can see why one would fall in love. The site is divided into several sections and I cannot give them all, but will try to list them as succinctly as I can.

The website address begins with: http://www.apple.com/support/ That screen opens to a list of several choices:

(1) G4, (2) iMac, (3) iBook, (4) Laptop, (5) OS-9, (6) OX Server, (7) Quicktime.

There are troubleshooting links: 1- Getting Started, 2- Solving Problems, 3- Tech Exchange, 4- Subscribe

Then there is 5- Get Help which, when clicked on, gives a long menu, 6- Connect to- (a long menu), 7- Update my- (a long menu), 8- Service Info- (long menu), and 9- Select other support information- (long menu), plus a multi-lingual choice.

You, of course, need to go there and see how you want to use it, even if you have an older Mac or Apple.

Good luck. I know you will enjoy this site, and get as much positive feedback as I have gotten. ■

From the November 1999 issue of ***MacNJ Window***, newsletter of the Macintosh Association of Central New Jersey,

MacInterface
The Cool Way To Get Jump Started On Your Mac

by Barbara Passman

PETER DE'ARMOND created a CD for beginning to intermediate Mac users to show how to use the capabilities which are built into the Mac OS for greater efficiency and functionality. "Although there are many great (third party) products out there" to "tweak some functions of the Mac interface" says De'Armond, he decided to create a CD tool so that many more persons could have the same tutorials he has given to individuals, teaching them how to use what comes 'Native' with the Mac. He says that his work, "MacInterface," is a tool to encourage folks to customize their Mac. He bases his lessons on OS 8.1 and 8.5.

I was interested in seeing what a CD tutorial of this sort offers. It is inexpensive, costing about the same as a good Mac book. The CD is as close to a one-to-one session from a teacher as any tool can be. MacInterface teaches tried and true ideas to help a new or intermediate user understand and use many features of the Mac; and probably answers some of the questions a newer user is uncomfortable about asking. It offers valuable lessons, helping Mac users avoid root directories and desktops cluttered with duplicate files, mysterious folders and the like.

De'Armond used MovieWorks (copyright 1999 by Interactive Solutions, Inc.) to create his animated teaching application. The CD contains a *READ ME* and the program consists of a *Main Menu* with an introductory chapter and twelve succinct lessons. While Mr. De'Armond teaches a lesson, the user sees a desktop on which the changes are made or things occur exactly as the lesson describes. A lesson can be paused at any point so that the user can go to his own desktop to re-enact what was just taught. The user can readily re-enter MacInterface and replay the chapter to hear and see, once again, how things are done. The *READ ME* clearly explains and encourages the user to stop and start and practice along the way. The appearance of the Main Menu resembles a tape player, with pause, play, rewind and quit rectangular buttons along the bottom of the window. A mini control window with a slider is at the top of all windows in all lessons. Pushing the slider is the easy way to move forward in a lesson or to return to an earlier portion of the lesson.

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The Introduction explains how to navigate through MacInterface, reiterating the *READ ME* file.

The first lesson, "Organizing your Hard Drive," teaches about drag and drop, sizing windows, and creating and renaming folders. "Saving and Organizing Files" continues showing the hierarchical filing system and navigating through it. It shows how to save files in specific places and demonstrates using the Save Dialogue box in applications, to create folders and to save documents into a file folder of choice. The chapter also shows how to put folders inside of folders. "Using Appearance Controls" talks about how icons are arranged, how they can be sized and how to use the Appearance Manager control panel to customize a Mac's aesthetic look. "Creating and Using Folder Tabs" follows next, showing how to make a folder become a tab at the bottom of the window and how to use this feature to advantage. In this chapter, using aliases is explained and suggestions are made about naming the alias. "Customizing the Apple Menu" fittingly comes next, showing a key way in which the aliases are and can be used on the Mac. Two important tips are given in this chapter; placing an alias of the hard drive and of the Apple Menu file itself in the Apple Menu folder.

Following chapters deal with more shortcuts to make Mac use more efficient and pleasant. "Using the Application Switcher" shows how to tear off and make a convenient palette from the standard Application Switcher in the upper right side of the Menu bar. "Using the Control Strip" shows how to use the strip and the parent control panel of the same name. "Using Contextual Menus" emphasizes the summarizing feature

in Contextual Menus and introduces the Clipboard feature of the Mac, reiterating the cut and paste features of the OS.

"Using Sherlock" shows how to search the Internet using the search engine of the same name included in Mac OS 8.5 and higher. "Finding Lost Files" shows how to search the Mac hard drive. Several Find parameters are mentioned and the Indexing feature, which affords Find by Content, is introduced in this chapter.

"Navigating through Folders" is next, a meatier chapter than those preceding it. The little arrow tabs, to the left of a folder name, are pointed out. Similar tips given here include showing how to view the contents of a folder or window in various ways, by double clicking the column heading or using the inversion arrows. Mr. De'Armond reviews how to set the views for all folders and how to close or open windows efficiently via keyboard commands. Key tips taught are Command Key + W, holding down the Option key while closing an open window, holding down the Option key while opening a folder, moving up and down a hierarchical menu, using Contextual Menus, and moving a folder into another folder by dragging the name of the active folder from its title bar.

The last chapter, "OS Help Menu," covers the Help components and introduces the concepts of hyperlink and AppleScripts and encourages the user to consult the Help feature built into the OS.

The tutorial program is organized logically, giving the user good information and knowledge to become proficient with his or her Mac.

The animation is comfortable. All key tips are illustrated right in front of the user on his computer monitor. It is nice to see this sophistication in something created by a single knowledgeable person, not the product of a resource-rich software publishing company.

I would, therefore, like to give unqualified recommendation to MacInterface but I cannot do that.

Despite all its good points, I found the presentation boring and, therefore, hard to attend to its lessons. Mr. De'Armond's voice is pleasing but his tone never varies. MacInterface often seems no more than a recording of a book about the Mac. Furthermore, he speaks quickly, too quickly in many places for users to readily absorb his message. Yes, we are invited and told to pause and rewind and replay sections as we go along. It is easy to do this but it is also disruptive. I wish that pauses were built into the program. How much more the impact if, at key parts, the presentation had built in pauses during which the user is directed to view and practice on his own hard drive! Instead, the presentation proceeds relentlessly and the material becomes overwhelming in the meatier chapters in which much is mentioned or discussed too quickly. The chapters about working with the hierarchical filing system, at the beginning and end of the program, especially, need practice pauses built in to enhance the learning process.

"This CD and application seek to meet the needs of someone who can turn on and run her Mac but has a poor grasp of the built-in capabilities or features which can make working with it easier and more fun..."

This CD and application seek to meet the needs of someone who can turn on and run her Mac but has a poor grasp of the built-in capabilities or features which can make working with it easier and more fun. The CD brings good lessons at a low cost to this user. Despite the boring qualities it won't hurt anyone who tries it. All of us learn differently so the benefit of MacInterface will be variable. Many, though not all users, will come away with new skills, although it may take several times hearing the material to absorb the information in order to use it.

MacInterface, copyright 1999, published by Peter De'Armond. The CD is available for $39.95 (through a secure server) at <http://www.macinterface.com>

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From the January 2000 issue of ***MACtropolis***, newsletter of The Rest of Us (TRoU) Chicago Mac User Group.

Check the ads for Computer Camp, and for the upcoming trip to MacWorld.

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—Volunteers Needed: Recording for the Blind and Dyslexic of Metro Washington is looking for volunteers who can read technical books (currently working on data structures in c++ for example). We are located in Chevy Chase at the Friendshiip Heights Metro, 5225 Wisconsin Ave., NW (at Jennifer Street- across from Mazza Gallery). We need computer literate folks willing to volunteer for 2 hours a week, to help read textbooks onto tape. The tapes are used by student borrowers. Interested folks can come by on Wednesday evening, January 20th, between 6-8pm for an open house orientation. Otherwise, they can call Laurel after 3pm at 202-244-8990 and get more info. Evening sessions start at 5:30 and 7pm, Monday-Thursday. Thanks again for your help and best wishes.

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