May / June 2004

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WASHINGTON APPLE PI

Volume 26, Number 3

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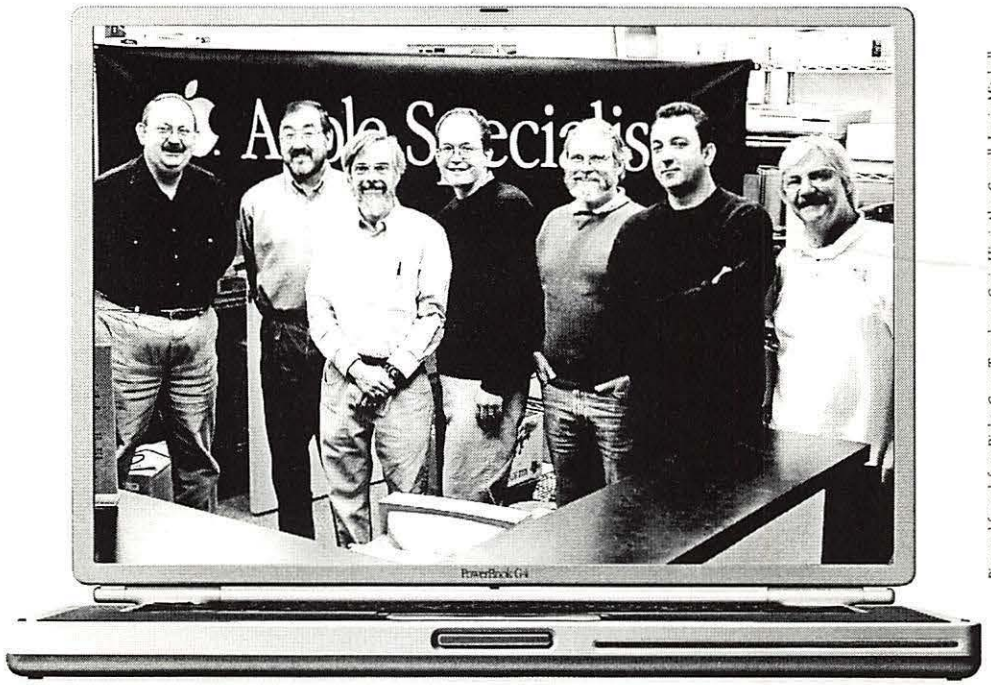

Pictured from left to Right: Gene Traynham, Craig Hirai, Alan Carroll, Jamie Mitchell, Lou Dunham, Fuad Hadi & Larry Sullivan. Missing from this particular photo are Debi Milligan, Lewis Bean Sr., Mike Cascioli, Kevin Billingsley, Mike Buckhout-White, Brad Gibson, Amy Wooden, Kurt Foster, Bob Gordon, Michael Surbrook, Scott Moulder and Glen Hirose.

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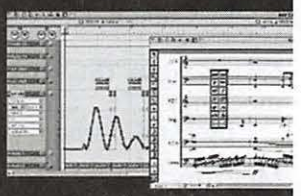

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July/ August ..... May 25
Sept./Oct. ..... July 25

Camera-ready ad copy

July/August ..... June 1
Sept./Oct. ..... Aug. 1

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washington Apple pi

This issue of the Washington Apple Pi Journal was created on a G3, with proofing 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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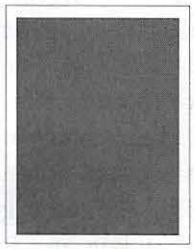
(available sizes)



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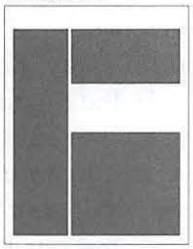

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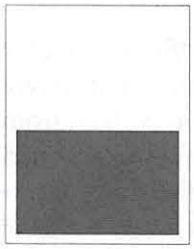

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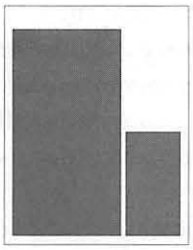

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Submission may be via email, or on CD when files are large.

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Welcome To WAP

By Dave Ottalini

I JUST SPENT the last day and a half working with other WAP volunteers to box up our old book library. It will ultimately take about 150 boxes to hold everything. A computer museum out in Livermore, California —Vintage Computer Festival (http://www.vintage.org/) —agreed to take the library and pay for the cost of shipping. All we had to do was supply the labor to box it all up.

Many of us took on this job with mixed emotions. WAP member Brian Mason has been our "head librarian" for a long time and lovingly took care of it for all members to enjoy. But, the trouble was, no one was using it. In the digital age, much of the information in those books could be found on the Internet in some form. I would argue that there are times when a book is vastly superior to trying to find something on the Internet. But our members have spoken and it was time to move on.

The library is a powerful lesson in volunteering for old and new members alike. Many volunteer hours were spent taking care of that library. It moved with us from our previous two office locations in Bethesda and had what was, really, an honored place in the front of our current office. It was one of the many reasons we gave to those considering membership.

It is of great historical value as well. No other club ever assembled a library like ours, especially with the Apple II, ///, Lisa and early Mac materials it contained.

Volunteering in whatever form is the bedrock of our club. We cannot exist without it. Those who spent their time with the library set an example we all can follow. As a new member, I hope you'll consider spending some volunteer time to help us move forward. Volunteering is also a great way to meet other members, learn new skills and feel good about yourself. We'll look forward to seeing you.

Oh and by the way, Welcome to Washington Apple Pi! ■

President's Corner

THIS IS A bittersweet moment. After two years of being your president, this is my final President's Corner. Writing a page or two to you, the Pi members, for each issue of the Journal has been a task that has made me take a long, hard look at our club, our members, our problems, our success and our dreams. While some columns have been easy to write, others have been penned only after a long period of thought and reflection.

Many things have happened in the past two years, both for me and for our club. We have all grown as we have moved from a club that was run by a long-time president and a paid office manager to one that is run by the efforts of its members. Some changes have been fairly easy, while others have tested the endurance and patience of our Board of Directors.

The Board has also had to shoulder far bigger jobs than were every anticipated in the past. They have had to find new ways of organizing and motivating member volunteers to help keep the Pi going. They have worked hard in revitalizing the bylaws, reworking committees, adding projects and shouldering additional responsibilities.

One thing that we learned is that in order to keep Washington Apple Pi healthy, we need the vision and energies of new leaders while retaining the knowledge and efforts of board members who have served for several years. We have also learned that everyone who serves on committees and in workgroups does not have to be on the board. Therefore quite a few of our long-time board members are stepping back to allow others to serve while they continue working on long-term projects.

Jim Ritz is leaving the Board, but he will still be active in coordinating the Tuesday Night Crew and the Reclamation Project along with teaching tutorials on Thursdays. Dave Ottalini is leaving his position as VP for Publicity, but he still plans to lend a hand in our ongoing advertising efforts along with producing topical CDs for the Pi to sell. While David Harris will no longer be a Director, he will be continuing to work on the TCS, office administrtion and the web page. Lila Bednar will continue leading the Graphic Arts SIG and Steve Roberson will continue with the Teen SIG and the Programming SIG. I will continue with Tutorials and the Pi Fillings CD in addition to helping plan the WAP Computer Expo.

With all these holes to fill, some were worried that we would have difficulty finding members to fill the vacant board positions. Obviously, that did not happen. We have 17 members running for office to fill our fifteen Board of Director positions. We have a real election, one in which you, as members, need to make some choices.

One of my final jobs has been to chair the Election Committee and although several candidate statements have arrived in my E-mail box, I have not read them—yet. I thought it might be better to write this column before I read the candidate's election statements. Why? Because I thought you might want to hear about what qualities are needed in our Directors.

Several people who were nominated for the Board declined because the did not think they the necessary technical skills to be on our Board of Directors. Well, they had it all wrong. Pi Board members, as a part of that job, do not run our computers, buy our equipment, repair our computers or run our network. Those kinds of jobs are handled by our staff volunteers, the people who tell me they are already too busy working on Pi projects to be on the Board.

Board members need to be people and project oriented. They need to act as coordinators, and planners, rather than techo-geeks. The Board must be made up of people with vision, ideas and enthusiasm to help our club grow and attract new members. We need people who are excited by the concept of a planning a computer show, who have ideas to mount a successful membership drive, who want to plan new and exciting programs while helping coordinate the efforts of our committees and volunteers.

Be sure to read the election statements of our candidates. I realize you probably will not know most of them, and some of the names may be ones you have never seen in the Journal, on the TCS or on the web page. Some of our candidates have been members for many years, some have only been around for a short time, but each of them heard the requests to consider running for the Board and each of them thinks they have something to offer to our organization. Pick the fifteen who seem to best understand what will be needed to run our club for the next few years and then, please log on to the TCS and vote.

I have really enjoyed my two years of serving as your President. I have learned a lot and I have appreciated the time and efforts of all of you who have helped in these two years of transition. We have accomplished many things, but there is far more that needs to be done. Our retiring Board members will be around to help. None of them are leaving the club. They are simply stepping back so that others can step up to help the Pi grow. I want to extend my personal thanks to everyone who has helped me and the Pi for the past two years. It is you who have made things happen.

"One thing that we learned is that in order to keep Washington Apple Pi healthy, we need the vision and energies of new leaders while retaining the knowledge and efforts of board members who have served for several years."

On a personal note, after almost a year of planning and construction our new home in Fairfax Station, VA is scheduled to be completed in July or early August. After having lived in our present home for fifteen years, the job of packing, moving and unpacking will be an enormous one. Add to that making curtains, painting, and decorating while preparing our present home for sale or rental, and I am sure you can see that my summer and possibly early fall will be filled with many home duties.

I will not be teaching classes in July and August, and perhaps the first part of September, but I will be back as soon as possible in the fall. I hope to make all the meetings, but if the moving van is in the driveway, I may miss one! I will be reading the TCS, writing Journal articles and working on CDs and I will see you in September! ■

—Pat Fauquet

WAP Expo 2005—Under Construction

WASHINGTON Apple Pi has decided to postpone the proposed WAP Expo 2004. Originally scheduled to take place in June 2004, the Expo has been put off until some time in 2005, most likely in the spring or early summer. (Note the revised display ad elsewhere in this Journal.) There were simply too many things to do in the short time left this year, and not enough resources (mostly people) to do them. By changing the schedule, the Pi plans to:

- More carefully define the event, and make it a mainstream Pi activity;
- Ask Pi members, and potential attendees, what they want to see. Do they want a swap meet, a flea market, a trade show, or some mixture of the three?
- Spend more time developing training and entertainment tracks for the Expo;
- Find a nice venue for the event that "looks like a million bucks" but doesn't have a price tag to match;
- Spend more time on contacting sponsors and exhibitors to the event;
- Give some thought to how the Pi wants to promote the event to potential attendees. Do we focus just on the latest cutting-edge hardware and software, or do we also offer attractions for the pre-Mac OS X users?
- Spend some time asking other Mac user groups in the region if they'd like to come and play.

If you'd like to help define and build the Expo, please consider volunteering now. There is much work to be done – contacting vendors, creating graphic designs and advertisement, recruiting volunteers for the show, arranging for facilities, arranging for training sessions and "entertainment" sessions (or running such sessions) – and the work needs to start now. You can showcase your talents and skills, meet terrific people, and have amazing amounts of fun.

Contact the Pi Vice President for Programs at vpprograms@wap.org to get involved, or join the discussions about the Expo on the Pi's computer forums on http://tcs.wap.org/ ■

Washington Apple Pi Picnic—June 19th 2004

THE WASHINGTON Apple Pi will host a picnic for members and guests on June 19th 2004 at Lake Accotink Park near Springfield. VA. The event will run from 10 am to 4 pm. Advance sale tickets will cost $5 and they will be available at the April and May General Meetings of the Pi. Tickets at the event will cost $6.50. There is no charge for children 7 and under in the company of their parents or guardians.

This special social event is intended to allow Pi members to learn a few more names and faces of fellow members. It is being held in lieu of an indoor General Meeting for the month of June and will also serve as an informal reception for newly elected Board of Directors members.

The picnic format is "modified pot luck." Each family is asked to contribute a dish that will serve four people. In order to assure a modest level of variety we have assigned categories according to the first letter of your surname according to the following table:

A - F) Picnic salads - pasta salads, lettuce salads, fruit salads, vegetable crudites, etc.

G - L) Side dishes - Baked beans, green beans, potato salad, deviled eggs, etc.

M - R) Munchies - Pretzels, potato chips, corn chips, dipping sauces,

S - Z) Desserts - Cakes, cookies, pies, etc.

The admission fee covers the cost of hamburgers, hot dogs, dinnerware, ice, beverages, etc.

The picnic setting is "suburban rustic" in a park with

Figure 1 - Lake Accotink Marina area

a pleasant lake (See Figure 1). We are using the "Large Lake Shelter," (See Figure 2) which overlooks the lake and has room for 200 people, so that inclement weather should not be a problem.

When preparing and transporting your food please take heed of the advice offered by the U. S. Department of Agriculture at http://www.fsis.usda.gov/OA/news/2002/picnicking.htm.

Further information will be available on the Pi website and the event-specific website at http://www/wap.org/events/jun2004/. Information about the park and lake is available at http://www.co.fairfax.va.us/parks/accotink/.

The address of the park headquarters is 7500 Accotink Park Road, Springfield, Virginia 22151.

Since the maps are a little confusing we have provided driving directions as follows:

From the I-495 Beltway or I-395 (Shirley Highway) southbound:

Take I-95 south towards Richmond. Take the next exit to pick up Old Keene Mill Road westbound. Pass Garfield Elementray School on your left and then look for a right turn onto Hanover Ave. Follow Hanover north to Highland St. Turn left on Highland and head west. Then...

From Braddock Road, Route 50, Route 236, or Duke St.:

From the intersection with Backlick Road, turn south. Look for the intersection with Highland St. shortly after crossing under the Beltway. Turn right (west) on Highland St. and head west. Then...

From westbound on Highland St.:

Watch for the sign to Lake Accotink. Turn right onto Accotink Park Road which soon forks left (south) and becomes the Lake Accotink Access Road. Do not continue straight as the road becomes Southern Drive which leads to an industrial area with no exit.

Continue on the access road until you see a parking lot on your left and a high railroad bridge ahead. The picnic pavilion and marina are around the bend to the northeast another 0.1 to 0.2 mile, depending where you park. So park as near the railroad bridge as you can to shorten your walk.

There is a turnaround at the marina where you can unload passengers and picnic supplies, but very little parking. ■

Contact: John D. Barnes, vpprograms@wap.org

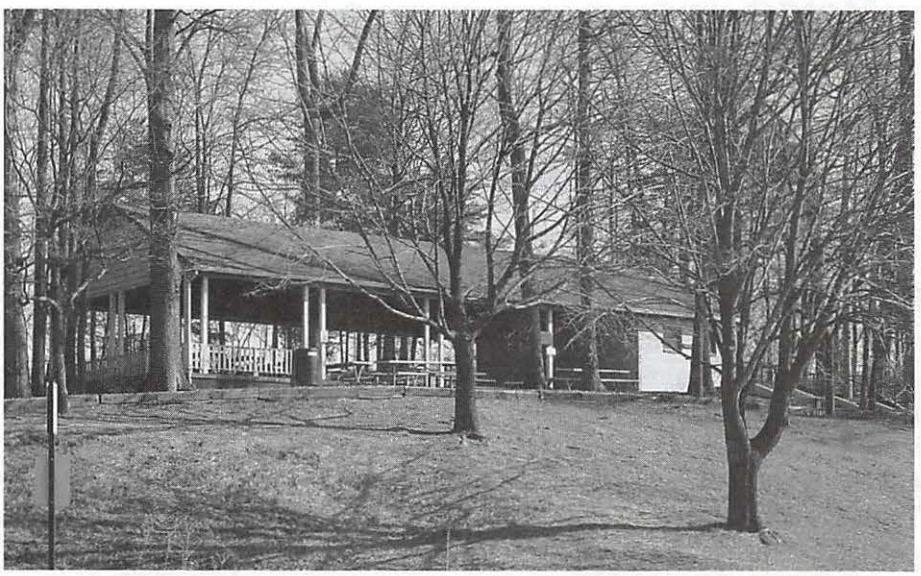
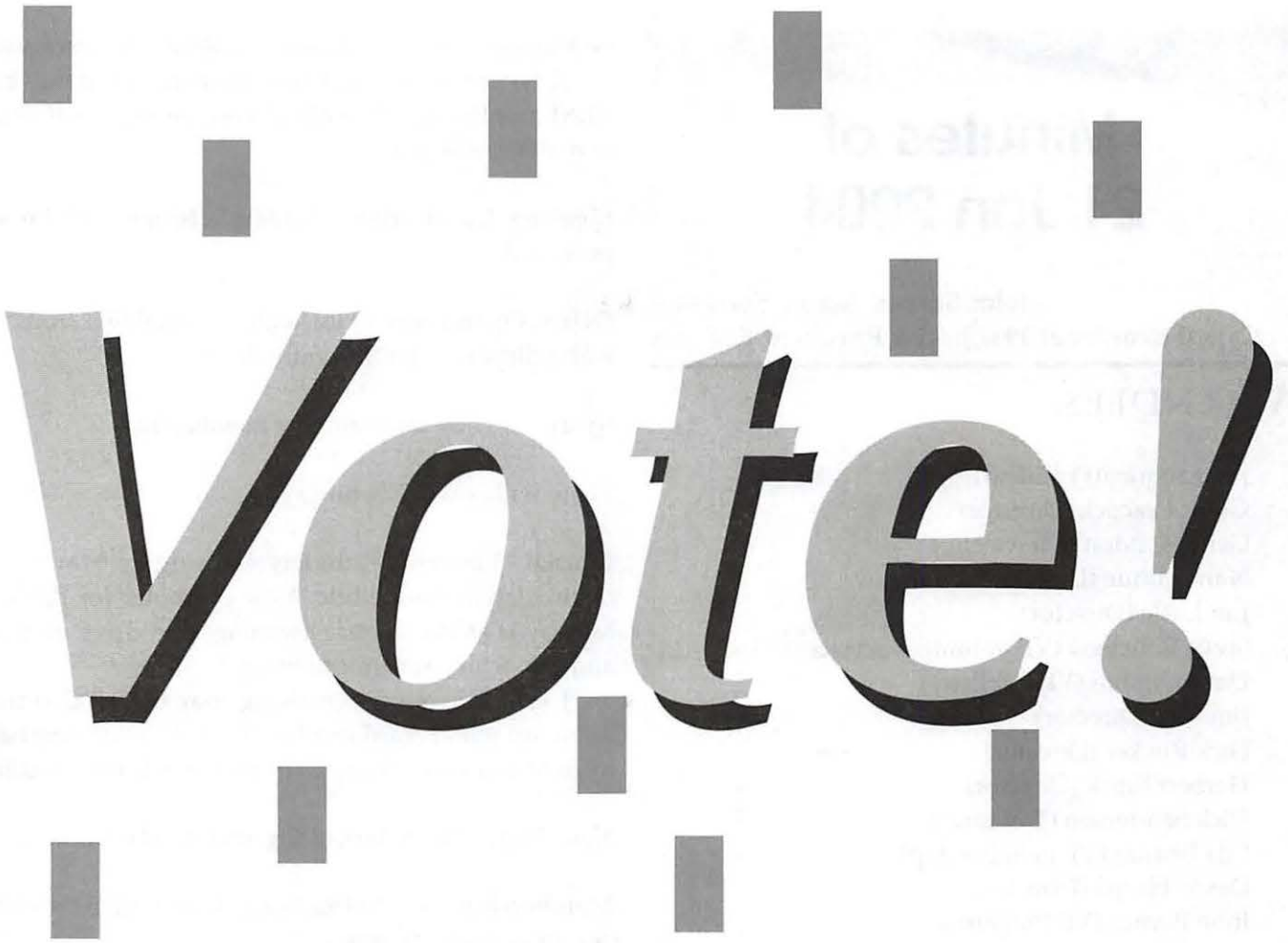


Figure 2 - Large Lake Shelter



Washington Apple Pi holds their annual election every May. This year, the Pi will be voting online, in a chad-free election using your browser. No stamp or envelopes to lick, no little ovals to fill, no holes to punch, no levers to pull. Just point your browser **(between May 1 and May 31)** at:

http://vote.wap.org/

and make your selections for the 2004-2005 Washington Apple Pi Board of Directors.

If you are having problems with your Pi account name and password, visit:

http://tcs.wap.org/password

for assistance.

Minutes of 21 Jan 2004

John Barnes, Acting Secretary
Called to order at 1937 hrs by President Fauquet

ATTENDEES:

Pat Fauquet (President)
Grant Peacock (Director)
Gene Haddon (Director)
Nancy Little (Director)
Jim Little (Director)
Steve Roberson (VP Volunteer Services)
Dave Ottalini (VP Publicity)
Jim Ritz (Director)
Dick Rucker (Director)
Herbert Block (Director)
Dick Sanderson (Treasurer)
Lila Bednar (VP membership)
David Harris (Director)
John Barnes (VP Programs)
Absent: Craig Contardi (Secretary)

Treasurers' Report - Better than 2002. Up, but not greatly.

Ned Langston - Garage Sale Report - Net income was approx $2300. Biggest drop was in consignment sales. Thanks to Nancy Little for organizing materials for distribution.

The December 2004 Computer Show and Sale is set for the 2nd Saturday (Dec 11th)

Pi Office Staffing — Need more front desk workers. The Monday guy was sick for a while, but is back.

Membership Applications in Journal - Lila will publish corrected version.

Moved and seconded that Charge for Explorer service be $96 per year with no startup fee for new clients. - Passed unanimously.

R. Sanderson raised first Class mail question. Abolished months ago. Prevailing Postage rates will apply to mailing of Journals

Election Committee - Nancy Seferian will be approached

Office Operations - Hot water is available from the water dispenser for SIG gatherings.

Bylaws- Ready for voting by membership

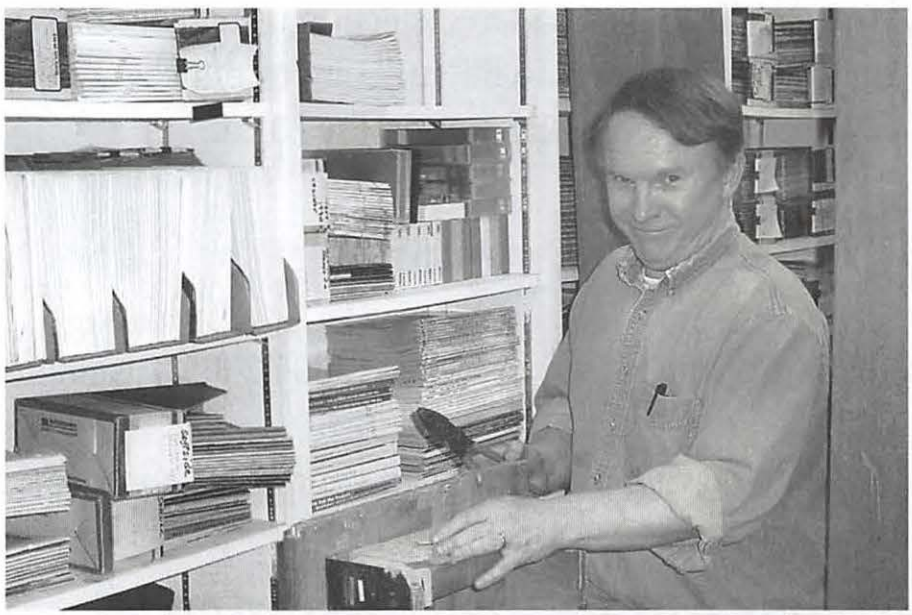
There will be a CD Saturday.

Journal - Lawrence is undergoing surgery. May be out of circulation for a while. New computer for Kathryn Murray is at Pat's house awaiting hard drive upgrade and opportune time for delivery.

Journal needs advertising manager: PC retro - followup with regard to advertising. Journal may have to go to bed with 80 pages. Journal needs photo editor

New "iLife" SIG to be put together by Hal Cauthen.

Membership— Grant Peacock will work on New member orientation program.



Pi Board member David Ottalini worked with several other Pi members in March to pack up the Pi's library and send it to Vintage Computer Festival, a computer museum in Livermore, California. (Photo by Richard Rucker, taken with a Sony Cybershot DSC-S70 digital camera.)

Greg Bartolett needs remote access to Filemaker server. Infrastructure changes may be needed to facilitate maintenance and development.
Motion: The Board is to instruct the TCS committee to provide remote access to the Filemaker server to Greg Bartolett.

1 opposed all others in favor.

Update the SIG list to be done by JDB

24 People at GASIG meeting on frigid winter day had to wait for MBS people to open.

Littles will handle pre-meeting transport for 24 Jan Mtg.

Desk workers needed at General Meeting. Every BoD member should put on a name tag and greet 10 people whom they do not know

Pat showed a video from the "Your Mac Life" party at MacWorld

Tuesday Clinic - Hal Cauthen came with a real crisis - partly caused by bad media on update disk.

Reclamation project has a backlog of 40 or so machines that need to be sent.

Cafe Press is moving slowly.

Library Cleanout Party - Start on 13 February, continue on 14 and 15. No host lunch.

MacWorld Report - Pat found a vibrant show, people were selling.

John Barnes summarized his impressions

Gene Haddon - Liked being in the presence of "smart people"

Look for User Group University presentations at mugcenter.com.

The Pi contingent did itself proud. Especially at the Shawn King's "Your Mac Life" party where they contributed mightily to the dancing.

Grant Peacock has some Movie content from Betacam.

Meeting adjourned at 2200 hrs. ■

Summary of the 11 February Board of Directors Meeting

PRESIDENT PAT Fauquet called the meeting to order at 7:43 pm

Also present were:

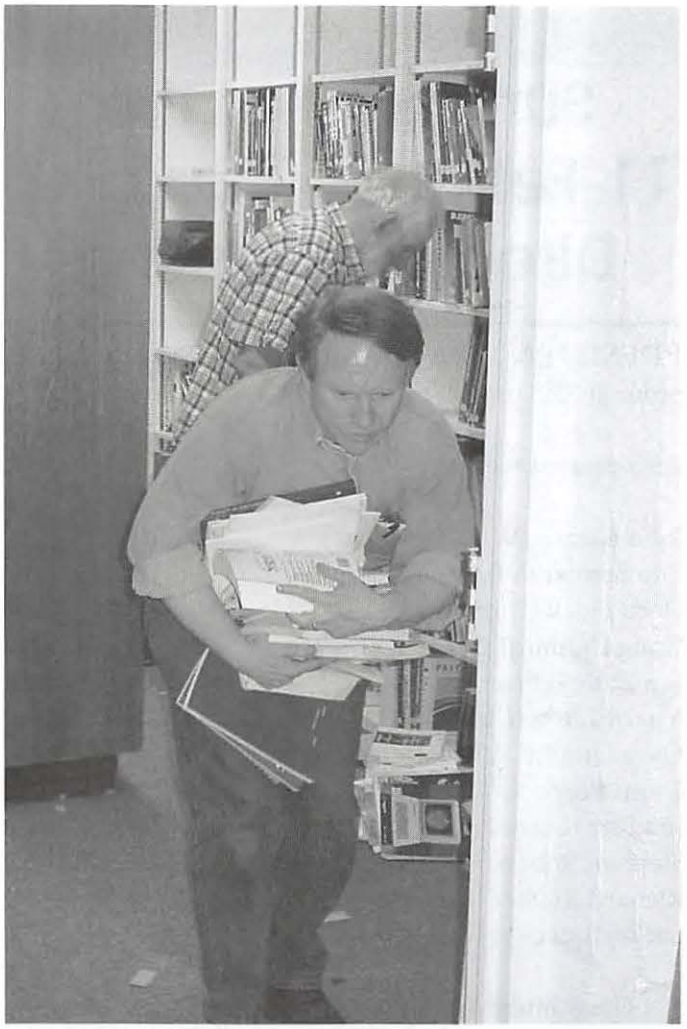
John Barnes (VP/Programs)
Lila Bednar (VP/Membership)
Herb Block (Director)
Craig Contardi (Secretary)
Jim Little (Director)
Nancy Little (Director)
Dave Ottalini (VP/Publicity)
Grant Peacock (Director)
Jim Ritz (Director)
Stephen Roberson (VP/Volunteers)
Richard Rucker (Director)
Dick Sanderson (Treasurer)

The minutes from the January 2004 Board Meeting were reviewed and approved with no additions or corrections.

Treasurer: Running behind last year, but not in the red. Tutorials, memberships, special events revenue down. Total revenues are down 20% from the same time last year.

Expo Committee: Dave Ottalini suggested, in concert with the planned June expo, a photography contest (he suggested "A Day in the Life of a Mac", leveraging the success and format of the "day in the life of ..." series of picture books). There would be an entry fee and prizes, with judging by a panel of 'experts'. Contest rules will be ironed out in the coming month. The idea was approved. Dave O. agreed to be the committee chairperson.

Pi Office: The office staff now has improved access to the Pi database thanks to Jon Thomason. Password changes, however, are still not convenient to do.



In March, the Pi decided to ship its library to Vintage Computer Festival, a computer museum in California. While working with Jim and Nancy Little, Dick Sanderson, Catherine Diebold and Richard Rucker, Dave Ottalini suffered an unfortunate encounter with gravity as documents started tumbling to the floor. Jim Little is in the background. (Photo by Richard Rucker, taken with a Sony Cybershot DSC-S70 digital camera.)

John Barnes proposed the purchase of a messaging service (such as Verizon Answercall) for our voice phone lines, to eliminate busy signals for those calling the office. Grant Peacock offered to loan a physical answering machine to the Pi as an alternative or at least an interim solution. The board agreed to pursue this latter avenue.

Jim Little reported that the Pi might have to provide a copy of our updated bylaws to the state of Maryland. Craig Contardi, as secretary, accepted the task.

Facilities: Nancy Little reported that since the reclamation team had an unusually busy month, it's been more difficult to keep the office clean. Pat Fauquet asked that the Tuesday Night Clinic crew endeavor to return the office to a presentable condition after each time they 'hang their shingle'.

Jim Ritz again proposed rekeying the lock cylinders on some or all of the office doors; He agreed to research the associated cost.

Pi Fillings: January was the most successful month ever (even more than the December garage sale). Sales of CDs more than a month old are not nearly as prolific.

Dave Ottalini asked for suggestions of good candidates for future topical (i.e. non-monthly) fillings: Perhaps GarageBand?

Store Representatives: Now that the Pi Hotline has been placed on the TCS and removed from the center of each month's journal, it is no longer necessary to create special "giveaway" versions by manually removing that members-only information. As soon as the Montgomery Mall Apple Store opens, we will need to assign a store rep.

Journal: John Barnes stated that there is a need for an official advertising contract for the Journal, as well as a volunteer advertising manager.

Membership: Greg Bartolett has the machine for database development. The board requested that Greg be given the ability to remotely access the membership database by the TCS crew. The unitary membership form is done and will replace all current forms. Some minor changes were mentioned (larger boxes for credit card info) and the 'glossary' of Pi lingo (Fillings, Explorer) needs to be restored SOMEWHERE.

Dave Ottalini asked about Atomic Learning courseware as a membership benefit, and was told that the board had discussed the possibility less than a year ago, and the cost per member would require a significant increase in member dues.

SIGs: Hal Cauthen is reconstituting the iMovie SIG as an iLife SIG. The board agreed that the normal incubation steps for SIG establishment are not necessary in this case.

The Riderwood Regional SIG status is unchanged since the last board meeting. Lila Bednar reported on a trip to the Fairfax Micro Center she took with Hal Cauthen. The current store management is willing to

grant use of one of their 60-seat rooms and a projector to the Pi. While too small for a general meeting, it might be well-suited for a SIG.

General Meeting: The January meeting, featuring the representative from Apple, was a smash hit! The 28 February meeting will be led by Lawrence Charters, on the topic of computer security from a user/consumer perspective.

Programs: Meeting Topics for March (Telecommunications) and April (iMovie testimonials) are set. May was tentatively planned for a musical theme, but the vendor partner is not confirmed. If no closure by February 16th, John Barnes will re-evaluate. Microsoft has contacted us about coming to speak. Pat was concerned that the general meeting attendees, many of whom have yet to migrate to Mac OS X, might not benefit from any vendor-centric presentation that would focus on applications written for Jaguar or Panther.

Apple was very generous to the Pi at Macworld (and immediately afterward) in terms of door prize items. They will be given away over the coming months.

Publicity: Dave Ottalini reported that our publicity efforts are ongoing. It would be a good idea if the planned spring expo had a one-of-a-kind logo for it, as did the 25th anniversary celebration. John Barnes offered to provide some samples. Herb Block asked if the club's profit margin for Café Press was adversely impacting sales, and many mentioned the fact that items sell well at general meetings at the posted price. Perhaps it's hard to beat the immediate gratification of wearing your Pi-logo item home the very same day.

Tuesday Nite Clinic: Jim Ritz reported that performing out-of-warranty service on Apple hardware & software continues to be a nice service the Pi offers to members that also brings in some great donations, and turns a few non-members into journal-carrying Pi members.

Reclamation: Seventeen 7000-series machines came in for reclamation to benefit a program for immigrant families. The sponsoring entity, Carlin Spring Elementary School, wrote us a nice thank-you letter inviting all Pi members to attend the presentation of these machines to the families at an 18 February event. Dick Sanderson suggested we put a sticker on all reclamation units saying, "Refurbished and Donated by Washington Apple Pi, Ltd. (301) 984-0300." The Reclamation SIG can always use volunteers to process machines.

After several hours of labor, a large portion of the Washington Apple Pi library sits boxed up, awaiting shipment to Vintage Computer Festival (http://www.vintage.org/), a computer museum in Livermore, California. (Photo by Richard Rucker, taken with a Sony Cybershot DSC-S70 digital camera.)

TCS: Transition to T1 underway, but presently still using our modem pool vs. the proposed solution. Once the modems are obsoleted, Jon Thomason has an idea for where they could still benefit the Pi. Otherwise, Reclamation will pair them with outgoing machines.

Library: No reply from Brian Mason or Lorin Evans about packing up the library. Therefore the planned donation of the majority of the Pi's historical books and magazines to a museum will be delayed at least a month.

Election: Nancy Sefarian and Steve Fink, who served the Pi magnificently as members of the election committee in prior years, have declined the opportunity this year. Neil Lubenthal has agreed to serve. Craig Contardi presented new rough-draft rules for this year's election cycle, and the board transformed them into a polished version uploaded on the TCS for approval. The major change is that electronic voting is the primary, preferred method. Paper ballots will only be offered upon written request to the Pi office via a self-addressed stamped envelope.

Pat Fauquet declared the meeting adjourned at 9:55 pm. ■

February General Meeting

"MACINTOSH Computer Security for Mere Mortals" was the topic of the February 2004 General Meeting. The meeting topic was something of an accident: in September 2003, computer security was mentioned, in passing, during another General Meeting, and the audience had far more questions than the available time allowed for answers.

Lawrence Charters, the Pi Webmaster, conducted the meeting, and divided computer security into three realms:

- Physical security;
- Mental security;
- Spiritual security.

Physical security centers on the physical aspects of a computer. The most common threats to Macs are physical threats. Laptops get dropped, get banged into doorframes, get knocked off desks and blown off picnic tables. Desktop and tower Macs are placed on inadequate furniture, plugged into questionable power sources, and burned up by lightening strikes and electrical surges.

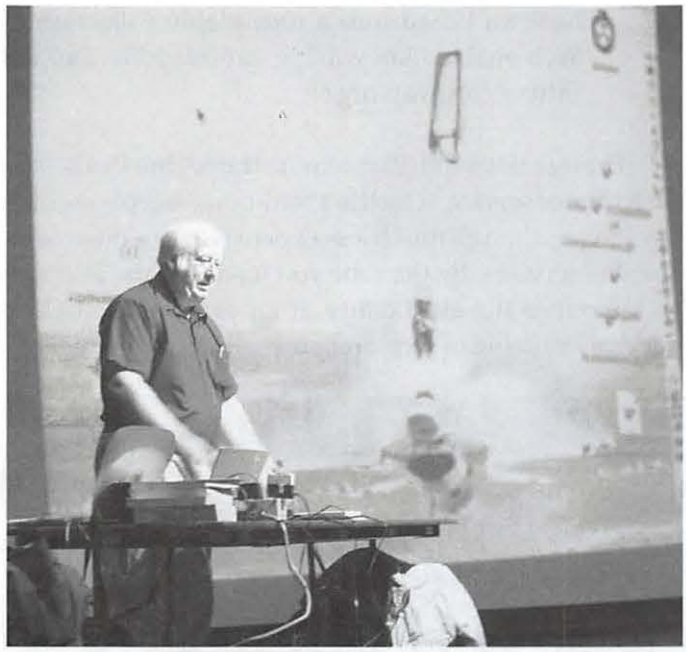
The best protection you can have for a laptop is a good carrying case. There is no point in having a laptop unless you intend to move it, so no excuses: get a carrying case. Perhaps the best soft carrying cases made so far came from Willow Designs, in Burnaby, British Columbia. Unfortunately, they closed shop in April 2004. Generally speaking, a soft carrying case should have at least a quarter inch of high-density foam, double-stitched seams, and heavy fabric. Some of the most popular cases have little or no foam, and are essentially a ripstop nylon case, offering no protection at all. For hard-sided cases, Zero Halliburton (not associated with the U.S. Vice President) makes outstanding metal-sided cases, but the prices are not exactly low (http://www.zerohalliburton.com/). Taking a very different approach, Pelican cases has extremely heavy duty plastic cases that are not only exceptionally durable, but they are waterproof, and will even float (http://www.pelican-cases.com/).

The "front desk" was quite busy at the February General Meeting, with people renewing memberships, buying the Pi Fillings monthly CD (February's disc featured Mac security software and information), and registering for the door prizes. (Photo by Richard Sanderson, taken with a Nikon D-100 digital camera.)

Pi President Pat Fauquet gives an impromptu demonstration on her PowerBook in the lobby during the February General Meeting. (Photo by Richard Sanderson, taken with a Nikon D-100 digital camera.)

A UPS (Uninterruptible Power Supply) is pretty much a must for anyone living in an area prone by thunderstorms. Once upon a time, UPS units were quite expensive, but over the past few years UPS units have dropped in price so that they aren't much more than a high-end surge suppressor, but they offer considerably more protection than a surge suppressor.

Next to physical threats, mental security is the biggest threat to Macs. Using a photo of an air crash (non-fatal) from 2003, Lawrence talked about the "little mental errors" that users make which pose a threat to their computers. Mental errors cover such things as randomly



The February General Meeting topic was "Macintosh Computer Security for Mere Mortals." Lawrence Charters used an illustration of a (non-fatal) aircraft crash in 2003 to illustrate his presentation on "mental security." (Photo by Richard Sanderson, taken with a Nikon D-100 digital camera.)

giving out your Social Security number to Web sites for no good reason, sending your Visa or Master Card number via E-mail, etc. In this regard, you are more at risk if you use a wireless phone or a cell phone for commercial transactions (while we call them telephones, both wireless phones and cell phones are really radios, and radio receivers can intercept messages from either). But if you do use a computer for commercial transactions, make sure you deal with established vendors, make sure you use only secure Web sites for orders and billing, and place your orders using a wired network – not a wireless one.

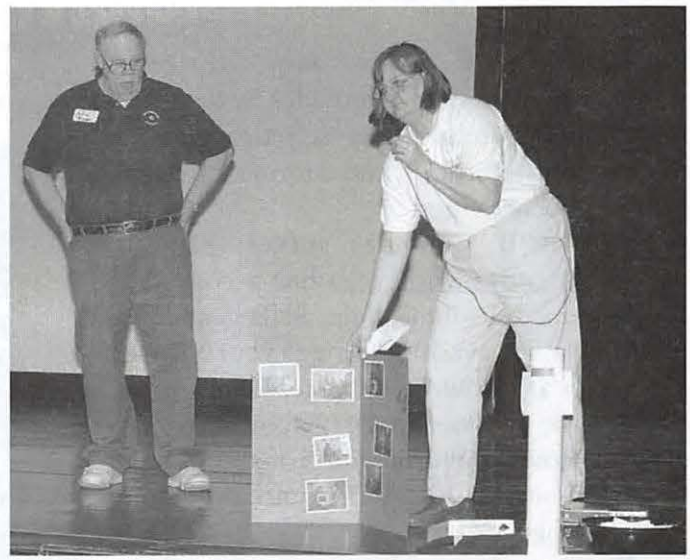
Spiritual security was Lawrence's somewhat whimsical term for "things that the user can't see." In the Windows world, the biggest security threats are "spiritual:" viruses and worms. In fact, if you have a Windows computer hooked up to a broadband connection, and you do not have a hardware firewall and maintain an up-to-date anti-virus package, your computer is probably already infested with any number of viruses and worms.

In the Mac world, "spiritual" threats are the least common, but they still exist. While there are no known Mac OS X viruses, Mac users can still accidentally spread viruses by forwarding infected mail to Windows users. Pre-Mac OS X machines (particularly those running Mac OS 7 and 8) are definitely susceptible to about 40 Mac viruses, plus a fair number of Microsoft macro viruses.

There has, in fact, been a recent surge in Mac virus activity. This hasn't been caused by new viruses but, rather, by Mac users searching through their closets for old machines, firing them up, and setting them up for relatives, friends, churches and the like. Often the user doesn't remember why they stuck the machine in the closet, and it doesn't occur to them that viruses and worms caused the problems they may have had with the machine. So these well-intentioned souls end up giving infected Macs to friends and loved ones, charities and schools.

Another source of infection is from information archeology. While going through the closet, Mac users discover old floppy disks, Zip disks, Bernoulli disks and other obsolete media, and decide to copy the data off these objects and onto something more permanent, such as CD-ROM. But along the way they forget to scan for viruses and worms, and end up permanently sealing old viruses and worms into brand-new laser-etched plastic.

The meeting ended with a large scrum of Pi members in the lobby, asking follow-up questions on anti-virus packages, firewalls, and computer cases. While not the most positive meeting in recent years, the meeting certainly attracted great interest. ■



Vice President for Programs John Barnes and Pi President Pat Fauquet show a giant "Thank You" card at the February General Meeting. Elementary school children created the card after receiving a large number of recycled Macintosh computers from Washington Apple Pi. See article page 23, for details. (Photo by Richard Sanderson, taken with a Nikon D-100 digital camera.)

March General Meeting

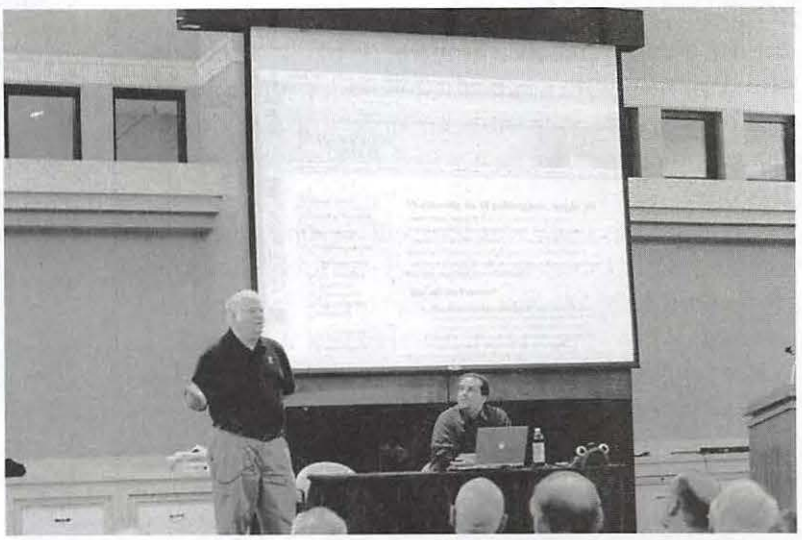
IN SEPTEMBER 2002, Washington Apple Pi gave an extended tour of the TCS, the Pi's 20-year-old computer forum. At the end of that meeting, the TCS Crew promised to return in a year. Intervening events turned "one year later" into March 2004, and expanded the topic to "The Electronic Pi."

Given the huge number of Pi members who have Internet connections, either through broadband services (DSL and cable modem) or dial-up modem, it is no surprise that more and more Pi members turn to the Internet for answers. The Pi has turned to the Internet, too, and provides a wide variety of Internet services. TCS architect Jon Thomason and Pi Webmaster Lawrence Charters led the meeting, and demonstrated a rich variety of services. Among those demonstrated at the meeting were:

- The Pi Web site (http://www.wap.org/) provides materials on past events, a huge selection of older Journal articles, and information on future activities;
- The Pi Calendar server (http://calendar.wap.org/) has a complete schedule of meetings, SIG events, and classes, available through your browser or as a downloadable iCal file;
- The Pi Store (http://store.wap.org/) provides information on memberships, renewals, CD-ROM purchases and other offers;
- Every Pi member has an E-mail account, which can also be reached via the Web (http://mail.wap.org/)
- Similarly, every Pi member can set up his or her own Web site (http://members.wap.org/). Explorer subscribers can set up quite large Web sites;
- The Pi forums, popularly known as the TCS, has grown from an Apple II-based bulletin board into a formidable collection of Web-enabled knowledge, camaraderie, and wit (http://tcs.wap.org/);

Though not explicitly demonstrated, the Pi also has an Explorer service, which is a traditional telephone dial-up service, though much less expensive than most commercial services. By the time you read this, the Pi hopes to announce the availability of an even faster dial-up service available to Explorer subscribers in the region.

A good crowd was on hand for the March General Meeting in the Forum at Northern Virginia Community College. Through amazingly poor planning, we missed the Ides of March, arguably the best time to meet in the Forum... (Photo by Richard Sanderson, taken with a Nikon D-100 digital camera.)



Pi Webmaster Lawrence Charters talks about the Pi's electronic services at the March General Meeting as Jon Thomason, author and software architect for many of those services, "drives" the machine connected to the projector. Note Jon's bug-eyed, fish-shaped "lunchbox" at the edge of the table, used for transporting various small pieces of electronic gear. (Photo by Richard Sanderson, taken with a Nikon D-100 digital camera.)

washington Apple pi general meetings

9 a.m.-noon

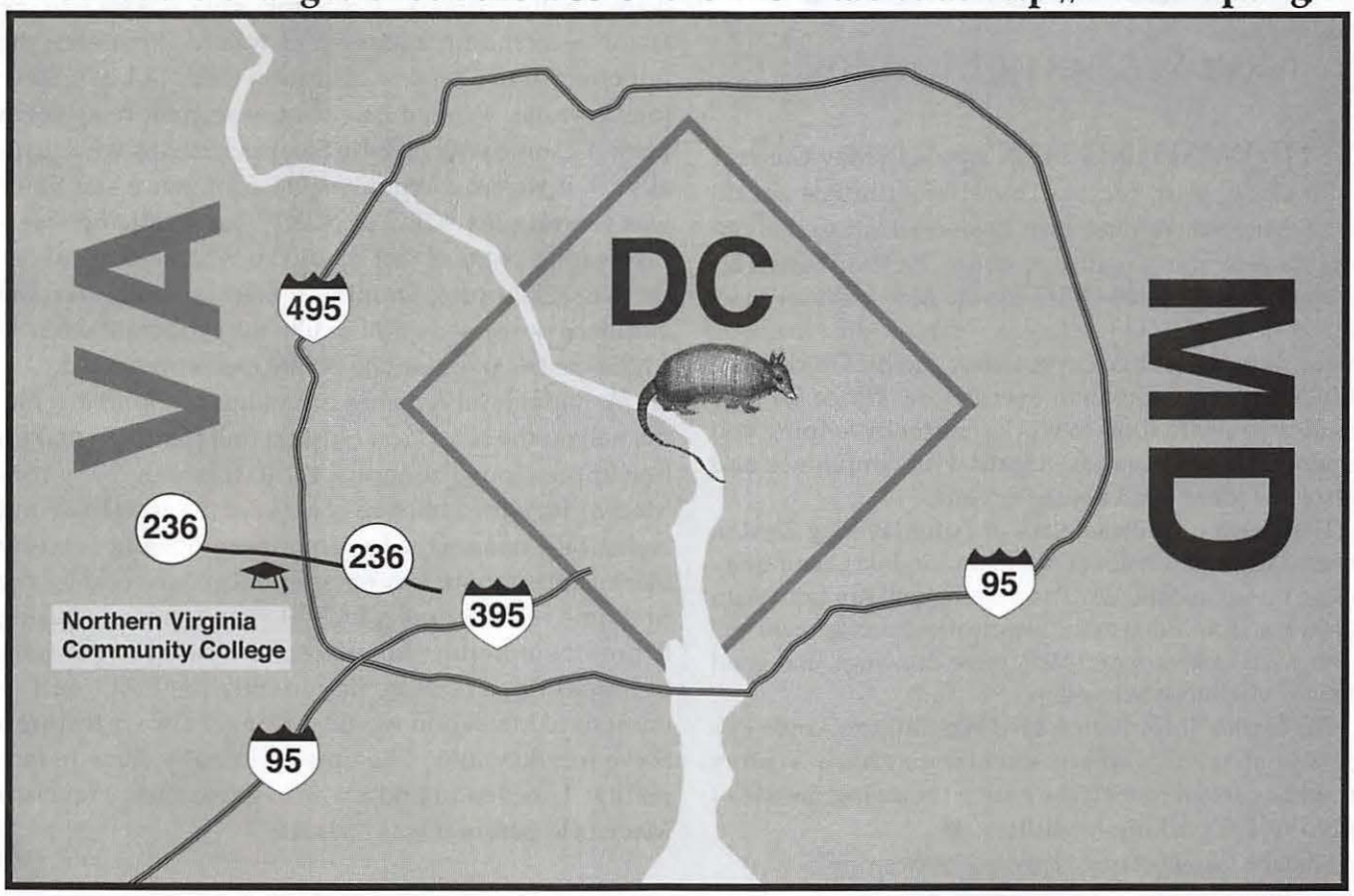
Northern Virginia Comm. College
Community & Cultural Center Aud.
8333 Little River Turnpike
Annandale, VA

May 22, 2004
The Empire Strikes Back: Office 2004

June 2004
Pi Picnic
(check website for details)

Getting to NoVa:
take Exit 52 West
onto VA 236
(Little River Turnpike)
SW of the armadillo

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



Much of the meeting was spent on answering questions, such as: how do I reset my password (there is a link off the opening page to the TCS, http://tcs.wap.org/), how do I deal with Spam (two methods were demonstrated, one using Apple Mail under Mac OS X and one using a Web browser to handle Web-enabled E-mail accounts), and how do I navigate on the TCS (this latter question has a wide range of answers, depending on what you want to do, and a great many were demonstrated).

The Pi will hold its first Internet-based election in May 2004, so if you haven't checked out the Pi's electronic services, now is the time. If you don't know your Pi account name and password, the best place to start would be to look at your membership card and, if it isn't on there, check out the instructions at:

http://tcs.wap.org/password

Finally, the meeting closed with a surprise announcement. Starting immediately, the Pi's link to the Internet has been upgraded from an asymmetrical DSL link to a full 1.5 Mbps T-1 link. This new, much faster service should also be more reliable, and will serve as the backbone for future electronic services for the Pi. ■

May General Meeting

THE WASHINGTON Apple Pi May General Meeting will feature a representative from Microsoft's Macintosh Business Unit to demonstrate the upcoming release of Office 2004 for Mac. This exciting new release of Office for the Mac includes Mac-first features such as Office Project Center, Word Notebook Layout View, Excel Page Layout View and the Office Compatibility Report. More than ever before, Office for Mac provides you with tools to work smarter by helping you manage your information, create with confidence and share your ideas with nearly anyone.

The meeting will take place on Saturday May 22nd in the Ernst Cultural Center at Northern Virginia Community College in Annandale, VA. The meeting will run from 9 am to 11:30 am. In addition to the feature presentation there will be free-form tech support Q&A, prize drawings, and good old plain Macintosh fellowship.

For further information visit Washington Apple Pi's web site at www.wap.org/events/may2004. Visitors should be careful to read the notice regarding the use of the NoVA CC parking facilitities. ■

Contact: John D. Barnes, vpprograms@wap.org

A Pilgrimage to "Mac-CA" (a.k.a. 8 Simple Rules for getting the most from the Macworld Experience)

© 2004 Craig K. Contardi

JANUARY 10, 2004: I have just returned from my very first Macworld, which was held the previous week in San Francisco. I've wanted to attend a Macworld for even longer than I've owned a Mac (1995). I started as an Apple II user and was fortunate enough to attend three AppleFests (1988-1990) but Steve Jobs was not with Apple during that period so the keynotes were wholly ordinary. I admit it: my primary driving factor in attending a Macworld was to experience the full effect of the "reality distortion field," a.k.a. a Steve Jobs keynote. While I had already seen Steve speak in person 7 some years ago (in San Francisco as well, actually...), it was at a Windows NT conference and Steve was wearing his "CEO of NeXT" hat. While he was a captivating speaker that day, even when talking about the NeXTStep programming toolkit for Windows, the audience possessed nothing like the exuberant tenor of a Mac-centric population. So the desire remained...

A popular advertising campaign of the 1990's hits the nail on the head: You only get one chance to make a first impression. The annual Pi bus trip to the New York Macworld, with a fraction of a day at the expo itself and realistically none of the conference sessions, did not seem like an appropriate way to experience Macworld for the first time. Furthermore, in 2003 Apple started refusing to time their product announcements based on the dates of Macworld, and more importantly the East Coast iterations of Macworld would no longer always feature a Steve Jobs keynote. The time had finally come to face reality: I needed to find a way to get to a San Francisco Macworld before it was "too late."

I cashed in frequent flier airline miles, found a hotel roommate, and made the other firm plans that were part of attending this January's show. I also made the major decision to buy a laptop computer, since the Pi reclamation project has historically chosen to put donated late-20th and -21st century PowerBooks back in the hands of schools and charities (and not the hands of the club's secretary). The cost was approaching $2000.00 for essentially a personal vacation. Macs are not even the smallest part of my job, so there was no work tie-in. In fact most of my co-workers just rolled their eyes at my apparently misdirected/misguided enthusiasm. My wife helped me work past this by painting the experience as a combination birthday/Christmas gift from her, and as a pilgrimage (in a quasi-religious kind of way) that I was entitled to make... *once*.

The experience was wonderful, and I'm certainly glad I did it. I did experience some surprises, and there are a few things I would do differently at the next show & expo I am able to attend. In no particular order, here are my "8 simple rules" for getting the most out of a Macworld.

1. Attend User Group University (UGU) – At the recommendation of Pi President Pat Fauquet, I arrived a day early to attend the one-day User Group University held at what must be the closest hotel to the Moscone Center, the Argent. You get to meet some pretty interesting people, both the presenters and your fellow attendees. You get a great lunch, a cocktail hour, and what I didn't know going in is that the sponsors give away a *lot* of very expensive prizes to attendees.

2. Attend a Steve Jobs Keynote, if at all possible - The keynote is open only to those that have purchased more than just an exhibit hall pass, and to members of the media. I was there for the latter reason, and managed to get a seat in the second row as a result. While I had to stand in line for over three hours to secure this position, the rank-and-file attendees started lining up shortly after midnight on Tuesday (the day of the keynote). The energy in that room cannot be described in mere words. It's not as much about the "Cult of Steve" as I initially thought, more it's the contagious excitement of being completely surrounded by like-minded individuals (which is a rare feeling in D.C. except at Pi meetings).

3. Plan Ahead (Show Schedule) – There is far more going on at a Macworld than one person can digest. At least once every day, and often twice, I had to make a hard choice between session offerings that overlapped each other. The schedule of conferences and sessions is available online, in the show program (which is readily available starting the day before the exhibit hall opens), and as a downloadable Palm OS calendar via several infrared "beaming stations" in the Moscone Center. I was completely unaware of the latter option, and therefore left the family Palm Pilot at home (since I had the iBook instead).

Once you have your complete schedule (and any addenda/corrections to the main program, which has to be bound and printed well before the show opens), determine your plan before each day begins. Sessions featuring industry celebrities such as David Pogue are almost always full, so by knowing your agenda, you avoid arriving too late to attend. The IDG staff were enforcing the fire code laws and turning people away once a room was S.R.O. (standing room only).

4. Plan Ahead (Dining) - Meal options within the Moscone Center were limited and *extremely* expensive. Set aside time in your schedule, if at all possible, to depart the convention center for a nearby eatery. There is a very large dining and entertainment facility adjacent to the Moscone Center called the Metreon, which will provide a far better dining experience than staying at the show. There must be dozens of other street-side restaurants within a 5-minute walk as well.

5. Don't forget the User Group Lounge – Located in one of the mezzanine rooms this year, the User Group Lounge was literally an oasis amongst the chaos. Intended for anyone who is a member of a Macintosh user group, the lounge featured plenty of uncluttered tables to take a break from the show, collect literature from other user groups (the complimentary copies of the Pi *Journal* were one of the more popular items, I must mention), and (best of all in my opinion) be entertained by some of the very same Mac-industry celebrities that pack the rooms at the public Macworld conferences. Folks like David Pogue, Andy Ihnatko and Shawn King are great supporters of the user group concept, and prove it time and again by appearing in the User Group Lounge. It was a much more interactive presentation than possible with the large crowds these luminaries draw most of the time. You get to see their more human, personal side, such as David Pogue talking about the emotion of

using iChat AV to reconnect with his family from across the Atlantic, and Shawn King interacting with friendly hecklers in the audience (which included this author).

March Meeting: Steve Roberson shows off his latest programming feat, a remote-controlled Lawrence Charters robot. Steve is still working on the wireless model. (Photo by Richard Sanderson, taken with a Nikon D-100 digital camera.)

6. Exhibitors are People Too! - Although this should have come as no surprise to me (since I have attended trade shows in the past), the energy level of the staff manning the exhibit hall booths steadily decreases between Tuesday (the first day) and Friday (the last). I made the mistake of trying to do almost all my exhibitor visitations on Friday, since that day had the least amount of conflicting activities off the show floor. By then, hardly anyone could be described as 'extroverted', having been on their feet dozens of hours and forced a smile so many times that their face was sore. They just wanted to go home. My plan was to pass out Pi *Journals* and use them as a calling card toward establishing a product-review or meeting-presentation relationship for the Pi. By Friday, I bet every vendor had already been approached by hundreds of attendees asking for one thing or another. I was underwhelmed by the face-to-face response to my solicitations, and as of March 26, 2004 I've not heard back from anyone I pitched. I chalk it up to bad timing on my part.

Even if you're not coming to them hat-in-hand like I was, keep in mind that Friday is perhaps best left for revisiting vendors that most interest you, and because you've been stopping by all week, you have built something of a relationship with them.

7. Go with a Group – Whether it's spending time with other members of Washington Apple Pi, or a group holding a common interest (i.e. subscribing to a particular newsletter such as TidBits or listening to the Your Mac Life Internet radio show), plans for after the expo closes each day should include more than just eating dinner alone and then heading back to your hotel room. There is a Web site set up every year in honor of the former managing editor of Macworld, which lists the 'extracurricular' activities taking place. Some are by invitation only, but others simply require advance registration and a willingness to socialize. This year, I went ice skating (granted, not the *first* thing you'd think of doing in San Francisco...) and secured an invitation to a private party by being in the right place at the right time. While I was unable to participate, several of the people in my 'new circle of friends' rented a van and drove to Apple's Cupertino headquarters (if anything could be considered a "pilgrimage to Macca", that would be it), hoping to see more than just the outside of the buildings on campus.

8. Go as a Journalist! – As evidenced by your reading of this article, I qualified as a journalist in the eyes of IDG (the company that runs Macworld Expos) and that meant a few "perks" as compared to the typical showgoer. The first step toward accreditation is to write an article (or three) for the Pi *Journal* in advance of the show you plan to attend. The deadline for the July/August *Journal* is the end of May, so you still have time.

I hope everyone reading my words are able to experience a Macworld for themselves, and enjoy it as much as I did. Feel free to drop me a line at craig.contardi@wap.org if you have your own "8 simple rules" or have any comments about *my* 8. ■

Notes from the 'first' iLife SIG meeting

By Hal Cauthen

WE'RE Baaaaaaaaaack!

The 'old' iMovie SIG – now the iLife Special Interest Group - held its first meeting on Sat, February 21, 2004

After the 'traditional' Q&A, Hal opened the meeting by re-stating the basic idea - to re-boot the old iMovie SIG as an iLife SIG - with the focus being how the various parts – iTunes, GarageBand and iPhoto — can support the iMovie/iDVD creative process. Hal was clear: he wants the SIG to succeed as many do, and urged that we come together, that everyone volunteer a wee bit, so that we can carry this SIG into the future — without anyone having to take on too much. He asked for volunteers to help plan and coordinate future meetings and, as noted below, he got several.

We agreed we will alternate meetings between Virginia and Maryland.

We went around room, giving each member an opportunity to express what he or she wanted and why we were there:

1. All agreed on one thing - to learn how to best use the full iLife '04 suite to create iMovies and iDVD's.
2. Most people communicated their desire to learn GarageBand - even the classical music lovers were open to this. Well, sort of... :-)
3. Additional requests for working groups in and away from the official meetings were suggested and requested, the idea being a buddy system where folks could collaborate and help one another with their projects.
4. Topics for future discussions included:

- taking iMovie projects to iDVD
- conversion of data between media (i.e. moving from VHS to DV to DVD)
- easy sharing between Macs and PCs

Paige Counts inspired all of us to think about submitting a digital video movie to the April Pi General Meeting, which will feature iMovie — and Bob M. showed us his iMovie and Photoshop skills in a botanical vision of his aperture-adeptness.

And then everything broke loose, people started talking and laughing and answering each other's questions. As someone said later, 'Why, I think we actually had a club experience!' ■

Meeting notes: March 20 iLife meeting

By Hal Cauthen

WE MET AT MacBusinessSolutions on Saturday, March 20. Highlighting our agenda was a demo of GarageBand. Sonny Tohan had arranged for Gavin St. Ours, a young musician and a GarageBand enthusiast, to demonstrate the program.

Gavin has been working with MBS for past several years, starting when he was in high school, working on the Web site. Since then, he's graduated from Salisbury State Univ., and as it turns out is the founding member of his band — Three Track Mind. The group has a CD out, which incidentally you can find at Apple's Music Store: Three Track Mind, *Throws Like a Girl*.

Assisting Gavin on the keyboard was Sanjay Tohan, Sonny's 8-year-old son. He is in second grade, a student at Seneca Academy. Sanjay has a passion to learn, which makes him a great person to teach. He always has lots of questions and is very sociable. Sanjay is also a black belt in Taekwondo. He started this sport at age four and recently was awarded a medal for most improved student. He plays the piano and swims like a fish. Obviously he owns a Mac and his recent pastime is playing with GarageBand.

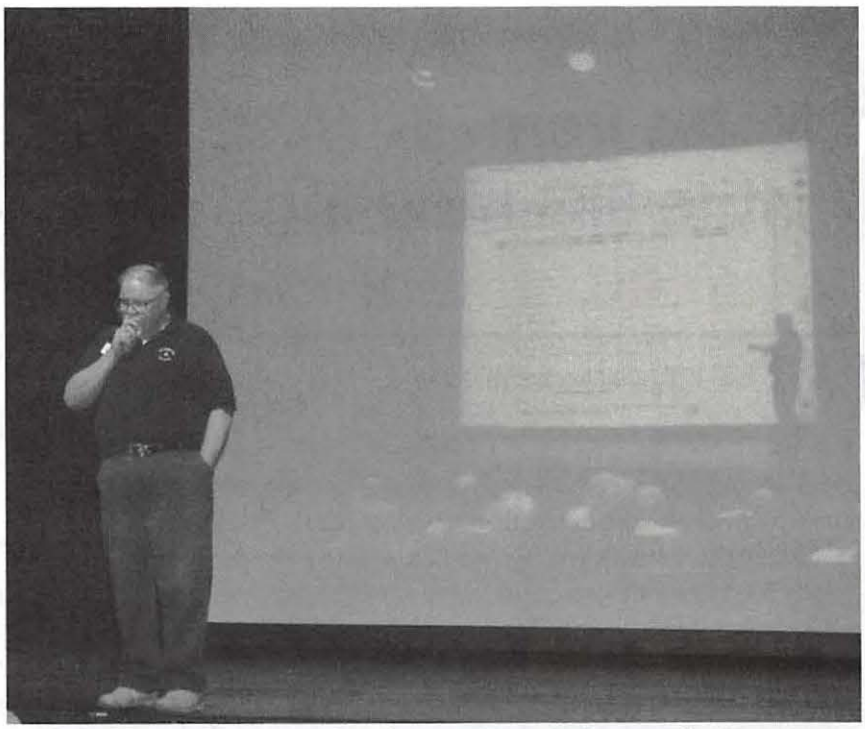
Between them, they did a great job of demonstrating the easy and power of GarageBand. Gavin's obvious delight and enthusiasm for the program impressed everyone, and I'd bet that after seeing Sanjay put together some loops, everyone in attendance felt inspired to go home and try it out for themselves.

Next, Marie Wray demonstrated a short iMovie tutorial she had created, and gave a brief description of how she'd done it. Using the following tools – Snapz Pro, Keynote, iMovie, and QuickTime Pro — she started the process by building various multimedia units into a single QuickTime movie of a specific size and quality.

Full data settings are used in the build in order to create the highest possible quality; and file compression is done on the completed project.

The general process she developed was as follows:

1. Script and outline the tutorial
2. Run through the screen shots desired in the tutorial and assign them to a slide.
3. Capture screen shots as stills (tiffs) and screen-motion capture (.mov - 30 frames-per-second)
4. Create presentation and compose rough voiceover script.
5. Export Keynote presentation as a QuickTime movie, no compression high quality.
6. Refine voice over script, segmenting script by sentences or paragraphs.
7. Record voiceover segments in separate files.
8. Add voiceover files in QuickTime Pro
9. Save QuickTime as a "self contained" movie.
10. Export the movie for compression, if needed.



Only the Shadow Knows: At the February General Meeting, Vice President for Programs John Barnes ponders a question and – note the shadow on the screen. While the shadow proves that John is not a ghosts (ghosts don't have shadows) nor is he a vampire (you can't photograph a vampire), there is obviously something – different – about John... (Photo by David Harris, taken with a Minolta DiMage X digital camera)

QuickTime Pro is used over other editing programs to keep the assembly simple. iMovie was not used as too much information is lost in the output compression of the Snapz Pro objects. Keynote, on the other hand, maintains high visual quality of all objects imported to the presentation, and finally, QuickTime movies can be imported into iDVD or DVD Studio Pro to create a DVD of tutorials.

The result was a very professional tutorial, which can be presented either as a self contained QuickTime movie, or as a Keynote presentation.

As a finale, I then showed Tom Baren's short animation of the Pi logo. The group's reaction was one of surprise and delight.

Asked what motivated him to create it, Tom said his intent was to create a short animation that the Pi could use as a signature piece to introduce things like slide presentations and Pi film festivals (with a little tweaking, it might also be used as a splash page for the Pi web site). He wanted to incorporate the existing Pi logo into the project, but the logo itself didn't seem to contain any components that would lend themselves naturally to animation (a flying Capitol Building doesn't make much sense). Since the Pi is a computer user group, he decided to animate the logo by simulating a computer user creating the logo with a generic graphics application.

He used Snapz Pro X to record a QuickTime movie of me typing, pulling down menus, and editing images in Microsoft Word. Then he used this movie as a template to create all the graphics for my animation (he used Adobe Photoshop to create the graphics). Next, he used his movie template again to get an idea of the pacing needed to make the animation flow smoothly. He used Adobe After Effects to animate the graphics. For the audio, he used his Apple microphone and a shareware product called Amadeus II to record the sound effects, and saved them as individual sound files. Final Cut Express was then used to incorporate the sound effects into the video. The end result was a 20 second MPEG-4 movie for computer use, and a DV version that was optimized for viewing on NTSC television.

Our next meeting will be at Micro Center, in Fairfax, on April 17. The focus will be on digital photography, and how iPhoto can be used with iMovie to make movies from still images. ■

Computer Reclamation and Community Education

By Richard A. "Dick" Rucker

Computer Reclamation at the Pi

ON A FRIDAY in early February, Jim Ritz, who heads up the Pi's computer reclamation projects as well as its Tuesday Night Clinic, organized a crew to refurbish 16 donated Macs, vintage 1995 (Power Mac 7200s and 7500s). The crew consisted of Pi members Lorin Evans, Donn Mader, Nancy Little, Alan Hedin, Bob Jarecke, and myself. Jim told us that they were destined for a good cause.

As this was the first time I had participated in one of these reclamation projects, I found the way it was organized interesting:

Triage for donated Macs: One group checked each incoming machine and labeled it according to whether the machine would start up successfully, the size of its hard disk, whether its CD-ROM and floppy drives worked, and how much random access memory (RAM) it had.

Hardware upgrading: Another group brought working machines up to meet or exceed this project's standards for hard drive capacity, RAM, etc. The parts used for upgrading had been previously scavenged from other less fortunate machines.

All Macintosh computers and peripherals donated by Washington Apple Pi must be fully functional, have no missing components, and not have any cosmetic damage. To the Pi this is important because the Pi does not want recipients to think they are getting cast-offs.
A Macintosh prepped by the Pi is intended to make a favorable visual first-impression and be as impressive a performer as is possible. Why? Because one of the Pi's hopes is that, come the day a family can afford to buy a new computer, they will have had positive Macintosh experiences; thus, a Mac will be their first choice.

Software installation: Before the Pi installs software in a machine to be donated, it is important to know who is to receive it and what they want to do with it. The Pi has developed a couple of configurations built from a mix of donated applications and shareware, which supports the intended use. For each configuration, the Pi has identified a minimum RAM capacity, hard drive capacity, and processor speed.

Two of us installed the software required for this project and made sure that the installation would boot and operate properly.

Ready to go: As each machine rolled off our assembly line, it was stacked for pickup. Along with the refurbished machines, the Pi also supplied working monitors, keyboards and mice, cables, and some working printers.

This reclamation project lasted all day, and I finished it off with a nice meal and glass of wine at an Italian restaurant nearby before heading back to Fairfax, VA. Between taking Jim's word that it was for a "good cause" and having enjoyed a pleasant meal, I felt good driving home.

Community Education using Macintosh Computers, both New and Old

I expressed interest in finding out what actually happened to Pi-refurbished machines, so Jim encouraged me to follow up and to report back in the form of one or more articles for the *Journal*.

To get me started, Jim produced a letter dated February 4, 2004, written to "Jim Ritz & Volunteers" by Christine Sutton, Principal of Carlin Springs Elementary School, referring to some computers donated by the Pi in January:

Marlene Perez and Esmeralda Galeas helping parents set up E-mail accounts. (Photo by Richard Rucker, taken with a Sony DSC-S70 digital camera)

On behalf of the staff, students, and families of Carlin Springs Elementary School thank you so much for your generous donation of computers. We have already distributed ten of the computers to families that have been involved in our computer classes since the fall. We are going to distribute the remaining four this week. The families were so excited and surprised to receive the computers.

I only wish that after all of your hard work you all had been there to experience how happy you made so many families. The families greatly appreciated your generosity. Having computers in their homes will be an invaluable asset to these families.

We begin our next session of computer classes and library nights on February 18th. I would like to invite any of you who are interested to come. Again thank you...

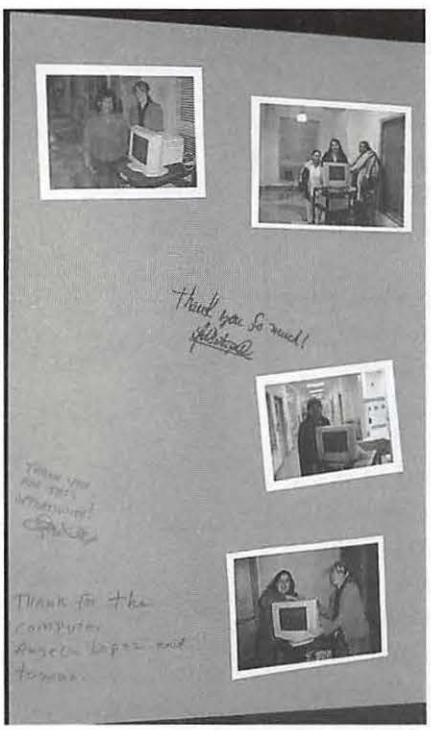
Jim put me in touch with Pi member Ginger Geoffrey who was responsible for making the connection between the Pi's reclamation program and the school. Ginger, in turn, suggested that I speak with Jenny Lindenauer at the school. Jenny invited me to visit one of the new series of evening classes being held for the parents.

I attended the session that started at 6:00 p.m. on Wednesday, February 25, in a computer classroom located adjacent to the library. The class was the second in a series of three being conducted for the school by an outside group. The first class was an introduction to an Internet browser and how to use it to do searches on the Internet. The class I attended was on how to set up a personal email account with Yahoo!

As you can see from the photos, the school building is relatively new and this classroom is well equipped with new iMacs and eMacs. The teacher for the class was Marlene Perez, from *Urban Alternatives*, and assisting her was Esmeralda Galeas, who is the school's liaison with its Latino community. In one photo, you can see Marlene (in profile) helping a student, and Esmeralda (with her back to the camera) helping another. A better photo of Esmeralda is the one showing her helping a mother with Yahoo! Students also helped other students as seen in the third photo.

The school is located in the Columbia Heights West area of Arlington County. Marlene said that the community has a high percentage of families from Central and South America plus some families from Asia, the Middle East, and Africa. Jenny told me that because of this, the school is very community-oriented and tries to find ways to involve parents, teachers, students, and community members in after-school programs. Involvement in these programs helps develop good relationships and communication among teachers, parents and students in English and many other languages.

Marlene said she prepares all handouts in English and instructs the class as a whole in English. But when it came to helping individual parents that night, Marlene and Esmeralda most often spoke Spanish. About half of the parents were using the Spanish version of Yahoo!



A giant "Thank you!" card signed by families receiving Pi-refurbished computers. (Photos by Richard Rucker, taken with a Sony DSC-S70 digital camera)

Esmeralda Galeas helping a mother use an Internet browser. (Photo by Richard Rucker, taken with a Sony DSC-S70 digital camera)

and the other half were using the English version.

If the parents had children who could not be left at home, they came along with their parents and were left with librarian who kept the library open expressly for that purpose. Later, I watched the librarian reading a story to a dozen youngsters. Jenny told me the librarian sometimes puts laptop computers out for the youngsters to use.

This family won a raffle for a Pi-refurbished Macintosh. (Photo by Richard Rucker, taken with a Sony DSC-S70 digital camera)

Marlene told me that Urban Alternatives is a non-profit that helps such families living in Arlington to find housing, child-care, gain literacy in computers, and become active participants to improve their community. Ben Harris is the Director of Urban Alternatives, which is located in the Arlington Mill Community Center.

The Pi's Contributions to Carlin Springs' Community Program

Last fall, the school held the computer classes mentioned in Principal Sutton's letter. The format was different and included three sessions using a computer-based typing tutor. At the end of the course last November, all parents who had participated were eligible to participate in a raffle for a refurbished computer system donated by the Pi through Ginger. The happy father, mother, and son who won the raffle, along with their Power Mac 7500 computer, are shown in the fourth photo.

Jim Ritz told me that the additional 14 Macs referred to in the Principal's letter were refurbished and provided to the school in January.

The evening of my visit, Esmeralda surprised me with a giant "Thank you!" card to the Pi for providing those 14 Macs—see the last three photos. Esmeralda and Jenny also told me how much getting these computers meant to these families. Jenny said that one mother burst into tears upon receiving one for her family.

During my visit, I met a parent who received one of the computers. His name is Jose Antonio Osorio, and he has a 7 year-old son, Gerson. He said that Gerson loves the computer and mainly uses it to draw pictures. Pedro is the parent in the foreground of the first photo.

I've since learned that Pi member Ginger Geoffrey and her husband, John Andelin, are active in supporting the school in its community outreach program. Both John and Ben are on the "Community-School Steering Committee" for Carlin Springs Elementary.

John and Ginger recognized an opportunity for the Pi's reclamation program to help out, and we thank them for taking the initiative. Thanks also go to the reclamation crews for extending the useful life of old Macs and for opening opportunities to their new owners. ■

One student helping another in the school computer lab. (Photo by Richard Rucker, taken with a Sony DSC-S70 digital camera)

Looking Back

"1984: The commercial"

"From deep in the Washington Apple Pi archives, we recovered this script (written with the original MacWrite 1.0 that shipped with all Macs back in 1984). As Apple looks back on twenty years of Macintosh, it is worth looking at the commercial that help start the entire phenomenon. If you haven't seen the commercial, you can view it at: http://www.apple.com/hardware/ads/1984/
though note that the _original_ commercial did not feature an iPod.

VIDEO:	AUDIO:
FADE IN:	
LONG MATTE SHOT - HIGH ANGLE: The inside of some futuristic industrial complex. We see a translucent tube extending into a huge vertical shaft; people appear to be moving through the tube.	SFX THROUGHOUT: Low rumbling, as of massive machinery or ventilation equipment. Ominous. MUSIC THROUGHOUT: Reed horn droning, fading in and out, occasionally striking a note an octave above the drone. Mournful. SFX (WILD): Footsteps, marching.
DISSOLVE TO: LONG SHOT: INT. TUBE - LOW ANGLE: Drably clothed workers march toward the camera.	SPEAKER: (V.O.) "Today we celebrate the first glorious anniversary of the information purification
CUT TO: MEDIUM SHOT: A young, fair woman, dressed in a white T-shirt and red shorts, carries a large hammer and runs down the corridor.	directives!
CUT TO: MS: The joyless grey faces of the workers as they march. Some wear breathing masks.	We have created, for the first time
CUT TO: MS: Helmeted, visored, uniformed troopers running down the hall.	in all history,
CUT TO:	a garden of pure

VIDEO:	AUDIO:
LS: Workers march past the camera.	ideology,
CUT TO: CLOSE UP: Workers' feet, marching in step.	where each worker
CUT TO: MS: Woman running.	may bloom,
CUT TO: LS: INT. AUDITORIUM - WIDE ANGLE The workers file in and take seats in the already-crowded auditorium. The Speaker's image, in extreme close-up, fills a large telescreen at the front of the room. Information displays clutter the periphery of the screen, including one which says DATE: 1.26.84. The Speaker is ugly, and wears very thick-lensed glasses. His words appear on the screen as he speaks them.	secure from the pests, obeying
CUT TO: LS: The young woman runs down the corridor. Further down the hall behind her, the storm troopers appear from around a corner, in pursuit.	contradictory thoughts.
CUT TO: MS: Trucking shot of the workers sitting, blank-faced, watching the Speaker's image, their faces lit only by the light of the screen.	Our unification of thoughts is more powerful a
INSERT: MS: LOW OBLIQUE ANGLE of the screen, with workers silhouetted in the foreground.	
BACK TO SHOT	weapon than any fleet or army on Earth! We are one
CUT TO: LS: Towards rear of auditorium; SLOW MOTION. The woman enters and runs up the center aisle, unnoticed by the workers.	people, with one whim, one
CUT TO: MS: Troopers running.	resolve, one

VIDEO:	AUDIO:
CUT TO: MS: Telescreen from center aisle, flanked by staring workers.	cause! Our enemies shall
CUT TO: MS: The woman has stopped running and now begins to spin, preparing to fling the hammer.	talk themselves
INSERT: MS: Troopers running	to death
BACK TO SHOT	and we will
CUT TO: CU: Telescreen	bury them with their own confusion!
CUT TO: MS: With a cry, the woman releases the hammer.	
CUT TO: MS: The hammer, tumbling end over end, flies through the air.	We shall
CUT TO: MS: Telescreen, as the hammer sails in and smashes it. The Speaker's face disappears in a blinding white flash.	prevail!" SFX: Explosion
CUT TO: MS: Telescreen, low oblique angle	
CUT TO: Reverse angle, trucking shot of workers staring at the screen in disbelief.	
SUPER: SLOW ROLL, black letters: On January 24th, Apple Computer will introduce Macintosh. And you'll see why 1984 won't be line "1984."	ANNCR: "On January 24th, Apple Computer will introduce Macintosh. And you'll see why 1984 won't be like '1984.'"
DISSOLVE TO: Apple logo on black background.	
FADE OUT.	

WebQuest Time Machine MTV!

Part I: A tutorial for teachers, parents, and children of all ages

By Sheri German

THE WORLD WIDE Web has been a central part of many of our lives for a decade or more now. Many things about the Internet have changed dramatically during this time, but one thing hasn't. Parents and teachers want children to participate in all the Web has to offer, but they want to keep them safe in the process. Back in 1995, Bernie Dodge and Tom March of San Diego State University thought of a way to accomplish the seemingly contradictory goals of safety and access. They created the WebQuest.

Simply put, a WebQuest is a lesson in a Web page. The idea of this lesson is not to engage in mere fact-finding, but to go on an exciting adventure or, well, a quest. The opening scenario should read like a "who-dunit" and lure children into the game. For example, here is how I set the scene in the WebQuest we'll put together in this tutorial:

> Time Machine MTV
>
> Introduction
> You've just been offered your dream job. You are going to be the star VJ (Video Jockey) on MTV. Your picture will be in People magazine, and you'll have lots of screaming fans. There's a catch, however. You're the host or hostess of MTV all right—for another century! You'll get out there on stage and introduce the music of Bach, Mozart, Beethoven, Stravinsky, or some other dude you'd rather not be caught dead listening to.
>
> You're going to have to do a little research to pull this one off, my friends. There's got to be a piece by each of these guys that will excite your audience. Maybe if you set the stage with a little history of the musical period as well as a biography of the composer, there will be greater appreciation.

I am going to leave you hanging a minute and ask you to go to Internet and look at this example WebQuest, as well as download its files so you can reconstruct it. This article will guide you through the creation of "Time Machine MTV," and you can see it at:

http://www.swanilda.com/webquest/

All the files you need to follow along with our tutorial are at:

http://www.swanilda.com/download.html

You will need to decompress them before you can use them.

WebQuest Structure

If you're finished doing that, let's begin by examining the basic structure of the traditional WebQuest. There are six main sections: introduction, task, process, evaluation, conclusion, and credits and resources. Before even bringing content into a Web editor, it's easiest to type out all the sections in a plain text document. (Note: if you plan to use Microsoft Word, be sure to use "save as" instead of "save" and choose "plain text" from the popup menu for file type. You don't want Microsoft metadata messing up your html pages!)

The Introduction

We've looked at a sample introduction, and now you have one example of what you can do in a WebQuest. Here are some other common topics that can form the basis of a WebQuest:

- Contemplating contemporary problems such as over-population and environmental issues
- Evaluating a piece of history such as the Lewis and Clark expedition and the part Native Americans played in its success
- Researching with the goal of outputting a project

such as mural, skit, play or other performance, as well as other tangible products
- Dealing with life's realities such as job searches and balancing budgets
- Exciting the imagination, something we would like to happen in all WebQuests

The Task

After we conceive of our basic premise, it's time to develop it in the section called the "Task." Here we give students a better idea of the problem they will have to solve, as well as what their finished product should include. Back to our sample WebQuest! Its task reads like this:

> After completing your research, each team should present an MTV show from a particular period in music history. You will choose a host, present introductory material about your time period and composer, and play some music that represents the style. Do you think there is no good classical music? Your task is to prove that this premise is wrong. There are lots of classical music pieces that make the foot tap and excite the blood.
>
> You'll have to be creative to prove the point, though. Maybe your host can dress up in the style of the historic period your group represents. Conversely, you can present the history and biography in rap or poetry. Use your imagination and make classical music come alive.
>
> And by the way: after you complete your research, see how many of the composers pictured on this page can you identify.

The Process

Next comes the most important section, the process. This is where you give the step-by-step guide, often in the format of numbered lists, for completing the Quest. The process should also include the timelines and deadlines students must meet, the strategies they might follow, and the role each student will take. This is also where you should list the links and Internet resources that provide the research tools for the children. Here it comes: the heart, soul, and main part of our "Time Machine MTV" WebQuest:

> First divide into four different groups. Each group should select a different period of music history from the list below:
>
> 1. Baroque: 1600-1750
> http://www.ipl.org/div/mushist/#baro
> http://www.sesk.org/Aesthetics/Music/Baroque.htm
> http://www.musiceducationgal.com/muhiti.html
>
> 2. Classical: 1750-1820
> http://www.musiceducationgal.com/muhiti.html
> http://www.ipl.org/div/mushist/#class
> http://library.thinkquest.org/16020/data/eng/text/education/theory/classical.html
>
> 3. Romantic: 1820-1910
> http://www.ipl.org/div/mushist/#rom
> http://library.thinkquest.org/16020/data/eng/text/education/theory/romantic.html
> http://www.essentialsofmusic.com/eras/romantic.html
>
> 4. Modern 1910-present
> http://library.thinkquest.org/16020/data/eng/text/education/theory/contemporary.html
> http://www.ipl.org/div/mushist/#twen
> http://www.essentialsofmusic.com/eras/20thC.html
>
> Once you have chosen a period of music and studied its history, your group needs to select a composer or two that represents it. There is a lot of exciting music from each period, and this list of Internet sites will give you composers' biographies, as well as a chance to hear their

music. Put on the headphones, sit back, and enjoy the concert. And don't forget to crank up the sound!

You can go to the New York Philharmonic site for kids and listen to music in the gallery of composers. You can also click on the "Create your own gallery" link. Once there, drag composer names from the lobby area to the gallery area. Then you can visit the gallery and listen to music by each of your composers.

Here are some representative composers and their music to help you get started.

Baroque
Johann Sebastian Bach 1685-1750
http://www.dsokids.com/2001/dso.asp?PageID=238
Toccata and Fugue in d minor for organ—listen to the organ impress itself with what it can do
http://www.sonyclassical.com/artists/hahn/site (Click to enter and then choose the "music" link)
Click on selection number one (which will play by default) Bach Partita for unaccompanied violin-so sad
Antonio Vivaldi 1678-1741
http://www.dsokids.com/2001/dso.asp?PageID=224
Spring from the Four Seasons
George Handel 1685-1759
A selection from the Water music is in the NY Philharmonic gallery

Classical
Gioacchino Rossini 1792-1868
http://www.dsokids.com/2001/composerchart.htm
In the gallery find Rossini and listen to his Barber of Seville Overture-don't sit down while listening to this one!
Wolfgang Amadeus Mozart 1756-1791
http://www.dsokids.com/2001/dso.asp?PageID=64
Eine Kleine Nachtmuzik
Ludwig Van Beethoven 1770-1827
http://www.dsokids.com/2001/dso.asp?PageID=57
Symphony #5
Joseph Haydn 1732-1809
At the gallery listen to the "Miracle Symphony"
http://www.dsokids.com/2001/dso.asp?PageID=234
Symphony #97
Franz Schubert 1797-1828
http://www.vladimirhorowitzmusic.com/ (Choose selection number 3, the Impromptu in B-flat major)
Impromptu in B-flat majoróa beautiful prayer
http://www.nyphilkids.org/gallery/main.phtml? (Find him in the gallery)
Fantasy in C

Romantic
Paul Dukas 1865-1935
http://www.dsokids.com/2001/dso.asp?PageID=240
The Sorcerer's Apprentice-Mickey Mouse, anyone?
Modest Mussorgsky 1839-1881
http://www.dsokids.com/2001/composerchart.htm
Scroll down to Mussorgsky and choose "Night on Bald Mountain" It's always Halloween on Bald Mountain...
Nikolai Rimsky-Korsakov 1844-1908
http://www.dsokids.com/2001/dso.asp?PageID=227
Procession of the Nobles
Gustav Mahler 1860-1911
http://www.dsokids.com/2001/composerchart.htm
Scroll down to Mahler and listen to the Symphony #1 fourth movementñvery dramatic!
Tchaikovsky
http://www.playmusic.org/string/index.html (Click on the violin link and listen to the violin concerto)

Antonin Dvorak 1841-1904
http://www.nyphilkids.org/gallery/main.phtml? (Click on Dvorak in the gallery)
New World Symphony-sounds like "Jaws" to me!

Modern
Maurice Ravel 1875-1937
http://www.dsokids.com/2001/composerchart.htm (Scroll down to Ravel and listen to "Bolero")
Aaron Copland 1900-1990
http://www.dsokids.com/2001/dso.asp?PageID=58
Hoe Down from Rodeo-a real foot tapper
Igor Stravinksy 1882-1971
http://www.nyphilkids.org/gallery/main.phtml? (Find him in the gallery)
The Rite of Spring
http://www.sonyclassical.com/artists/hahn/site/frame_top_music.html
(Click on selection number 8 to hear the Stravinsky Violin Concerto)
George Gershwin 1898-1937
http://www.dsokids.com/2001/composerchart.htm (scroll down to George Gershwin and choose the first audio selection)
An American in Paris
Bela Bartok 1881-1945
http://www.nyphilkids.org/gallery/main.phtml? (Find Bartok in the gallery)
Concerto for Orchestra
Sergei Prokofiev 1891-1953
http://www.nyphilkids.org/gallery/main.phtml? (Find Prokofiev in the gallery)
Romeo and Juliet

One way you can organize your material is to use Kidspirations to develop a concept map or flow chart.

The Evaluation

Once you put that behind you, it's time to give children a clear idea of how you'll evaluate their work. In education circles, we use the all-important rubric. The WebQuest Web page uses a table with each objective listed on the left and the scoring criteria at the top. Take a look at our sample Quest to get a feel for the kinds of skills and output you might grade: http://www.swanilda.com/webquest/#eval

The Conclusion

The conclusion is another very important aspect of the WebQuest. It not only reviews what the students have learned, but it brings closure to the Quest and gives ideas for further exploration. Here is the conclusion for our "Time Machine MTV."

> You should now know quite a bit about a specific period of music history. As you can see, "classical" really is not just classical music. That is only one period of music history, though we use its name to describe all "serious" music from the Middle Ages to the 20th century.
>
> At the end of all the groups' MTV presentations, you should also know something about the other major periods of music history. Which one do you like best? Which composer excited you most? Would you go out and buy a CD of your favorite classical composer's music?
>
> Test out your new knowledge by playing this "Time Machine" game at DSO Kids Online. http://www.dsokids.com/games/timeline/index.html

Directions for putting WebQuest content into a Web page

Before we talk about the credits and references part of a WebQuest, we're going to actually reconstruct the "Time Machine MTV." We have our information, images, links, and central idea. How are we going to turn them into a Web page? If you're new to creating Web pages, you don't need to start from scratch. There are many templates out there for you to use. Bernie Dodge created some in 1999, and these are at the following link:

http://webquest.sdsu.edu/LessonTemplate.html

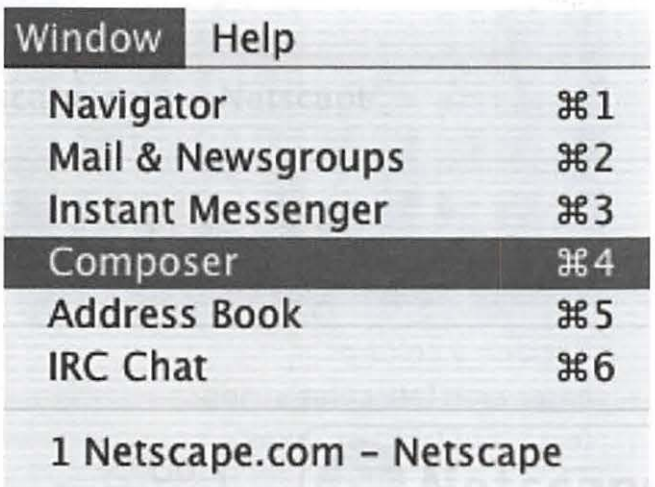
There are templates that create the WebQuest all on one page, and there are templates that distribute the sections among numerous pages. These are more complex to manipulate. When I teach my education majors at Trinity College how to create their first WebQuest, I give them an all-in-one template that I created. It uses modern Web standards and is very small in file size. This template is part of the compressed file at my site that I referenced at the beginning of this article.

Some of you may have a Web page editor such as Macromedia Dreamweaver, Adobe GoLive, or Claris Home Page. If you don't have one already, you can download the free Netscape 7.1 and use its Web editor "Composer" (no pun intended!) that comes as part of the browser package:

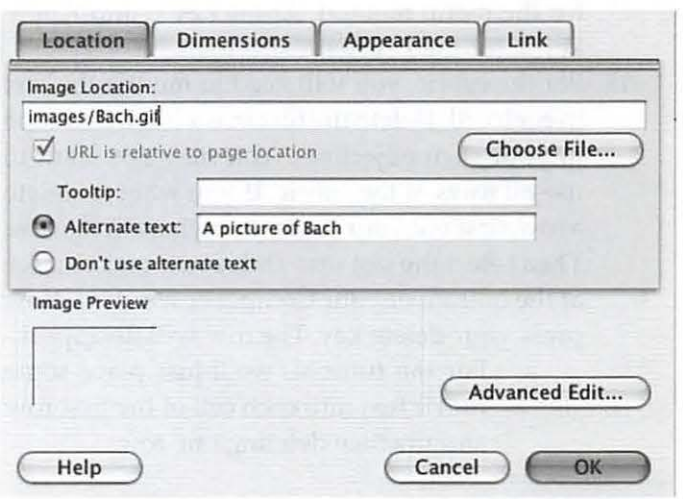
http://channels.netscape.com/ns/browsers/download.jsp

Assuming that most of you will opt for Composer, the directions will center on its use.

1. Launch Netscape.
2. Go to the menu and find Window>Composer.



3. Go to File>Open and navigate to your template.
4. For the tutorial, navigate to WebQuest_Start.html
5. Highlight the text "Title Goes Here" and type the title of your WebQuest.
    a. For the tutorial, type the title "Time Machine MTV"
6. Highlight the "x" and insert the grade level for which you're making the Quest.
    a. For the tutorial, type 5th grade.
7. Highlight the filler text and replace it with your name and email address.
    a. For the tutorial, enter your name and email address.
8. Delete the text that asks you to insert a picture.
9. Go to Insert>Image or use the Image button on your toolbar.
10. Browse for the image.
    a. For the tutorial, first choose "beethoven.jpg," then "bach.gif," then "tchaikovsky8.jpg," and finally "Mozart.jpg." After inserting each image, leave the cursor where it is and insert the next one.
11. Add a description of the image next to the radio button for "Alternative Text."
    a. For the tutorial, add "Beethoven," "Bach," Tchaikovsky," and "Mozart" for the appropriate images. Alternative text gives people with vision problems an idea of what's in your image.
12. More advanced users can select the "Appearance" tab and choose a text-to-image alignment. Teachers who are new to Web page creation should just stick with the default and leave the image in a space by itself. In our case, we're inserting four images one right after the other.

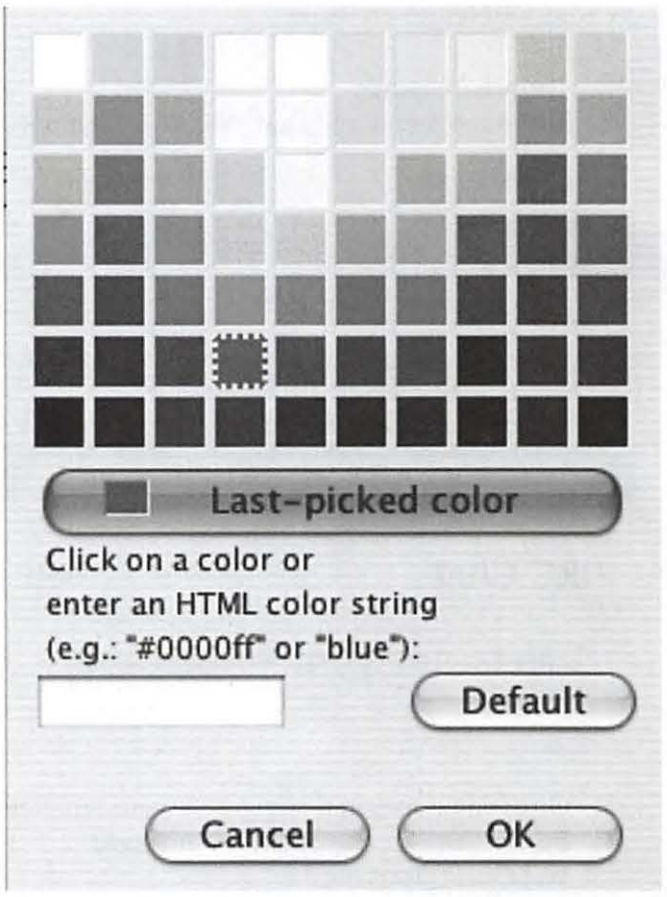


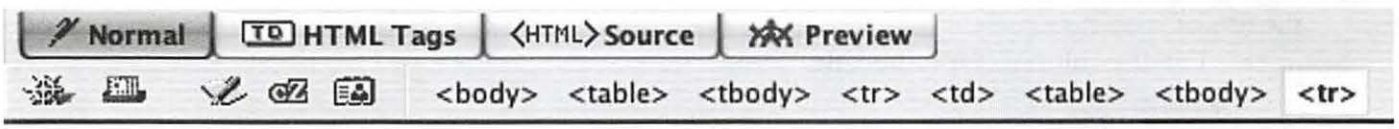
13. Now go to the text under the subtitle "Introduction" and delete the explanatory text. If you are creating an original WebQuest, enter your own introductory text. Do the same for "Task" and "Process." You may want to use ordered (numbered) or unordered lists for these sections of the WebQuest. You may use your insert menu or the list icons on the toolbar.

14. For this tutorial, you'll open the document wq_text.txt. Select text with your mouse, then copy and paste the text for each section into the proper place. (Edit>Copy and then Edit>Paste for the menu method. Apple key C and Apple key V for the keyboard shortcuts.)
15. For the rubric, you will need to modify the text in each cell. Delete the text in each cell and type in your own objectives. You may not want to use all rows of the rubric. If you want to delete a row, first put your cursor anywhere in the row. Then select the last <tr> (table row tag) you see at the bottom of your Composer window. Now press your delete key. The row will disappear.
    a. For the tutorial, we'll just place some rubric text into each cell of the first row and practice deleting one row.
16. Delete the text for "Conclusion" and enter your own text. Under standards, enter the area (such as math or English) and standards that the WebQuest addresses. If you live in Maryland, you can find the information you need at http://www.mdk12.org/mspp/vsc/index.html.
    a. For the tutorial, again, select, copy, and paste the appropriate text from the wq_text.txt document.
17. Enter your credits in the "Credits" area of the page.
    a. For the tutorial, select, copy, and paste the appropriate text.

Customizing Design Elements

18. You may change colors by using the toolbar. If you are familiar with Microsoft Word, you should have no problem highlighting (selecting) the text you wish to change, and using popup menus and other controls to create formatting.





"Simply put, a WebQuest is a lesson in a Web page. The idea of this lesson is not to engage in mere fact-finding, but to go on an exciting adventure or, well, a quest. The opening scenario should read like a 'whodunit' and lure children into the game."

19. Creating links: Select the text that you want to turn into a link. Click on the little chain button in the toolbar. That is a link button. Type in your link. Don't forget to use the full http://www. Format. Just using www dot will not work. You must include the http://.
    a. If the text you are selecting (such as in our process area) is a complete Web address, first copy it before you open the link dialog box. You can go to Edit>Copy, then choose Edit>Paste.
20. You can change the background color of the page if you like. Choose the menu Format>Page Colors and Background. Click the button for "Choose Custom Colors." Choose the button for "Background." When the color chart appears, choose a color and click "OK." Click "OK" again.

The last part of a WebQuest, the credits and references, involves the discussion of some complicated issues such as education copyright and fair use. I will deal with these in part two of this article. I will show families and teachers how they can find images and evaluate the Web pages they will use as resources for the Quest. Part two will also deal with the common problems new WebQuest creators run into as they put together Quests. While you wait, I hope you'll take a look at the wonderful WebQuests already available for you to play with at such sites as http://www.bestwebquests.com/ and http://www.webquest.org/. ■

Apple Confidential 2.0: A Review

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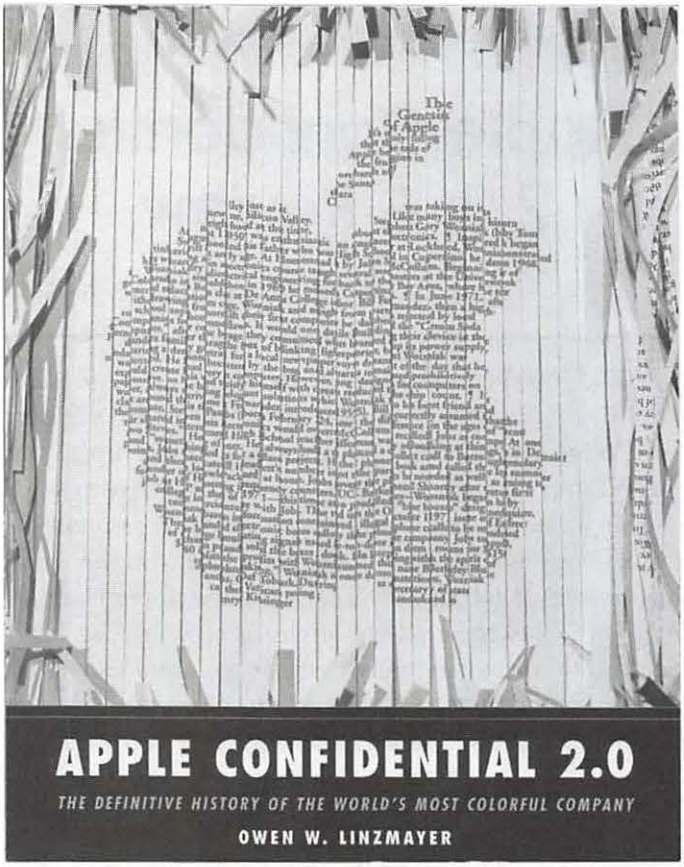
YOU WANT TO like *Apple Confidential 2.0*. Subtitled "The Definitive History of the World's Most Colorful Company," you want it to live up to the self-billing. Apple is certainly a colorful company and, as the world's oldest personal computer company – think about that for a moment — it has a complex, lush history worth telling. Even if you have never been an Apple II, Newton or Mac aficionado, you'd be hard pressed to find a company that has generated as many waves and ripples through modern culture and society. Coca Cola, General Motors and Sony might come close in many respects, though the extravagant fanaticism — for and against — and general atmosphere of loopiness in the Apple world set it apart.

Certainly *Apple Confidential 2.0* is filled with facts, some large, some small, and some so ludicrously inconsequential as to make you wonder why they were committed to paper. The book also has a great mass of screen shots, graphs, drawings and photos (one photo includes your humble reviewer in the background), not to mention tables and timelines. Owen Linzmayer says in the Introduction that he has been following Apple since the days of *Creative Computing*, in which he was an Apple II columnist. "I 'd bet there aren't more than a handful of employees who have been at Apple as long as I've been focusing on the company in my journalism career." After reading a few pages, you begin to believe it, imagining Linzmayer's home filled to overflowing with shoeboxes of clippings, note cards, and Post-Its covered with Apple miscellanea.

It's about people

People play a larger role in the book than technology, which is not particularly surprising. Steve Wozniak looms large as a gifted, very sensitive engineer who seems genuinely interested in making the world a better place and in doing "good things." You can't help but come away with a positive impression of this brilliant, unassuming, loveable bear of a man who went from de-



signing "blue boxes" for making free long-distance phone calls to designing the Apple I and II to enrolling in (and graduating from) the University of California, Berkeley, under the name "Rocky Raccoon Clark." An entire chapter is devoted to "Woz's Wanderings," talking about his marriages, his rock festivals, and his post-Apple entrepreneurial endeavors, and he crops up at other points in the book, usually to illustrate his engineering talents, his loves and his loyalties. About the only negatives mentioned are his poor choices in friends.

Others don't fare as well. Former Apple CEO John Sculley also has an entire chapter, too, as well as repeated references throughout the book, and many of his personnel, management, and marketing successes are noted. But at one point he is also compared to Neville Chamberlain, the British Prime Minister who caved in to Hitler, and to make the point even more vivid, there are pictures of Sculley and Chamberlain shown side by side. To call this egregious is an understatement; such a comparison is more suited to a rant by some know-nothing in a chat room than to a self-styled gray eminence of Apple journalism.

Michael Spindler, CEO during Apple's darkest period, has a chapter to himself, too, and it is almost uniformly negative. And another chapter is devoted to Dr. Gil Amelio, the CEO who brought Steve Jobs back to Apple. While it is generally more positive, there are some passages that come across as either ignorant or petty, or perhaps both, such as: "Amelio earned a Ph.D. in physics from Georgia Institute of Technology, entitling him to be addressed as 'Doctor Amelio.'" *Entitling him* to be addressed as Dr? That is the proper, earned title to use for someone with a doctorate. Does Ph.D.-less Linzmayer have some kind of grudge against the academically gifted?

The main character throughout the book, stated and unstated, is Steven Paul Jobs. His likes and dislikes, successes and failures, pop up all over. And the majority portray him in a bad light. He comes across as rude, arrogant, and technically ignorant but wanting desperately to be thought of as technically adept and visionary. He also seems untrustworthy if not downright dishonest, gifted in his choice of friends more than his management choices, and at times Apple's albatross as well as its savior. Since much of this is documented using Jobs' own words (a consequence of both his self-promotion as well as his tendency to write or speak before giving thought to the ramifications), you don't get the impression that Linzmayer is *entirely* unfair in his assessment. Though there are times, as with Sculley, Spindler and Amelio, that the choice of material seems petty in the extreme. If you are a devoted Jobs cultist, it seems fair to say you won't like the book at all.

Coded clues

Quite a bit of the material goes beyond voyeuristic curiosity (tales of the rich and foolish) and is genuinely useful. If you are one of those Mac users who has no patience for those who insist on calling various model Macs by their code name ("You have a yikes? Can you get treatment for it?"), there is an entire chapter on code names. Included are lists of code names for CPUs, for Apple II devices, for input devices, for entire classes of Mac models, monitors, networking devices, printers, software, and various miscellaneous categories.

For example, you may not realize that iSight, Apple's clever FireWire-based video camera, had the code name of Q8. On the other hand, you may have trouble finding this information, since the index has no entries for either iSight or, for that matter, code names.

Speaking of the index, it is pretty bad. At one point Linzmayer discusses the movie *Mission Impossible*, and the role played by a PowerBook in this blockbuster film.

"Certainly Apple Confidential 2.0 *is filled with facts, some large, some small, and some so ludicrously inconsequential as to make you wonder why they were committed to paper. The book also has a great mass of screen shots, graphs, drawings and photos..."*

There is no entry for "Mission Impossible" in the index, nor is there a general entry for "Movies." If you happen to think to look for Cruise, Tom (star of the film), yes, you can eventually come back to the reference to *Mission Impossible*. Another film, *Independence Day*, had an even larger (and more positive) role for a Mac, yet it isn't mentioned, nor is film star (and long-time Apple commercial spokesman) Jeff Goldblum. But *Monsters, Inc.*, *Toy Story*, *Toy Story 2*, *Finding Nemo*, and *Bug's Life* – none of which have a thing to do with Apple – are mentioned in the book, and have entries in the index under their own titles.

Marooned in time

If the index seems somewhat sloppy and very incomplete, there are times it appears to accurately reflect a similarly sloppy and incomplete text. There is, for example, a quite short chapter devoted to "Macintosh Insiders," the select few who had their signatures molded to the inside of the case on all early Macintosh computers. The signatures are reproduced, along with (very) short summaries of what these individuals did on the original Mac project and, if known, what they are doing today. The chapter is disappointing in that, despite his vast collection of Apple material, Linzmayer has no idea what a fair number of them did after leaving Apple. Women on the project, in particular, seem to have vanished without trace. He is, of course, not obligated to keep track of every Apple employee, but what was the point of the chapter if he had so little to work with?

Throughout the book, Linzmayer struggles to present information in both a chronological fashion and thematically. When talking about the early days of the Mac, for example, he might quote a comment by someone who had no role in those early days, and who has not yet been introduced to the reader. Unless you are well steeped in Apple lore, the reference appears to be a non sequitur. This happens so often, however, that it interferes with the narrative flow.

Linzmayer attempts to make up for this with timelines. These are not woven through the narrative but, rather, graphed right on the page, with axes and tick marks. There are timelines for:

- Apple I and II
- Steve Wozniak
- Mac Models
- John Sculley
- Windows
- Newton
- NeXT
- Pixar
- Michael Spindler
- Mac Clones
- Gil Amelio
- Mac OS

and possibly some other subjects as well (the timelines aren't mentioned in the index). They do, to some degree, give you a feel for the progression, or non-progression, of various people or technologies. But they are also frustrating: if Linzmayer can exactly pinpoint an event on a timeline, couldn't he also throw in a date?

The timelines, even when they do contain interesting tidbits of information, often come across as padding. For example, the Mac OS timeline is spread across seven full pages of the book, but it contains just 203 (mostly short) lines of text. In other words, it is shorter than this review, but takes up quite a bit more space, for no apparent reason. The Mac Models timeline takes up 21 pages (22 if you count the introduction).

On the other hand, there are occasions when Linzmayer can be very precise, though you wonder why. In talking about the birth of Apple, he has this paragraph in one margin:

When Apple was founded, Steve Wozniak lived at 1618 Edmonton Avenue in Sunnyvale and Ron Wayne lived at 1900 California Street in Mountain View.

And this is worth noting for what reason? It is, however, a taste of what is to come, as he makes a point of giving the exact street address of various buildings associated with Apple throughout the book. He then notes at least once that periodic postal and municipal reorga-

nizations have renumbered some of the addresses, leaving you to wonder if you could actually find any of these places, even with a seemingly exact address, without the aid of a city engineer.

Where is Joe Friday?

If you are looking for the facts, just the facts, often *Apple Confidential 2.0* can be a big help, despite the poor index. But there are some jarring editorial flaws that tend to reduce your confidence in the book, and these are even more distressing since this is in essence the second edition. (*Apple Confidential: The Real Story of Apple Computer*, was published by No Starch Press in 1999). There are occasional problems with incorrect tenses or plurals, probably brought about through moving text around in a word processor.

But what can you make of Linzmayer's claim that the PowerPC 603 had a code name of "Wart (King Arthur's trusty aide")? No, Wart was the wizard Merlin's nick-name for the young Arthur, and the nickname was probably lifted straight out of T.H. White's *The Sword in the Stone* (a logical prequel to his *The Once and Future King*), which was quite popular at the time. Is Linzmayer correct on the code name, and simply clueless on the origin?

His introduction to the chapter on "Macintosh Insiders," complete with the replica signatures, has this intriguing sentence: "Here's a brief look at the people who created the Mac and an update on what they were doing at the beginning of the 20th century." Logically, you would expect to have a chapter full of blank pages, since virtually all of the individuals mention weren't even *born* until the latter half of the 20th century. Yes, he probably meant "21st century," but you do wonder how the error made it into print.

You might also wonder how often something has been in print. An entire chapter is devoted to Apple's famed "1984" advertisement for the Macintosh, called "The Greatest Commercial That Almost Never Aired." It covers the genesis of the idea, the production of the commercial by Ridley Scott (fresh off his success with *Blade Runner*, one of the finest science fiction films ever made), the reaction to screenings of the commercial when shown to Apple marketers (wildly enthusiastic) and the Apple Board of Directors (appalled), the enormous costs involved in commercials shown during the Super Bowl, etc. It is a fascinating, absorbing chapter.

And I had read it all before, on a Web site, "Curt's Media." Created by a graphic designer with extensive experience in print and film, the Web site has a section called "The 1984 Apple Commercial: The Making of a Legend" (http://www.isd.net/cmcalone/cine/1984.html). There is about a 90% verbatim overlap between the text on the Web site and the text in the book. Someone clearly plagiarized something.

That "someone" appears to be Owen Linzmayer. On the "Curt Media" site is this statement: "The following information comes from Owen Linzmayer's Book, The Mac Bathroom Reader. He has made this information available to give you an idea of the kinds of fun articles, quotes, and information that are included in The Mac Bathroom Reader." In other words, the chapter in *Apple Confidential 2.0* appears to be lifted almost verbatim from *The Macintosh Bathroom Reader* (Sybex, 1994).

The Macintosh Bathroom Reader is out of print, but Amazon does sell used copies. On reflection, your reviewer decided that buying a used "bathroom reader" had little or no appeal ("you want a used *what?*"), but it seems clear that at least one chapter of *Apple Confidential 2.0* was lifted from Linzmayer's own, earlier work. While self-plagiarizing isn't quite as mortal a sin as plagiarizing the works of others, it does leave you wondering how much of the current volume is new, and how much is recycled.

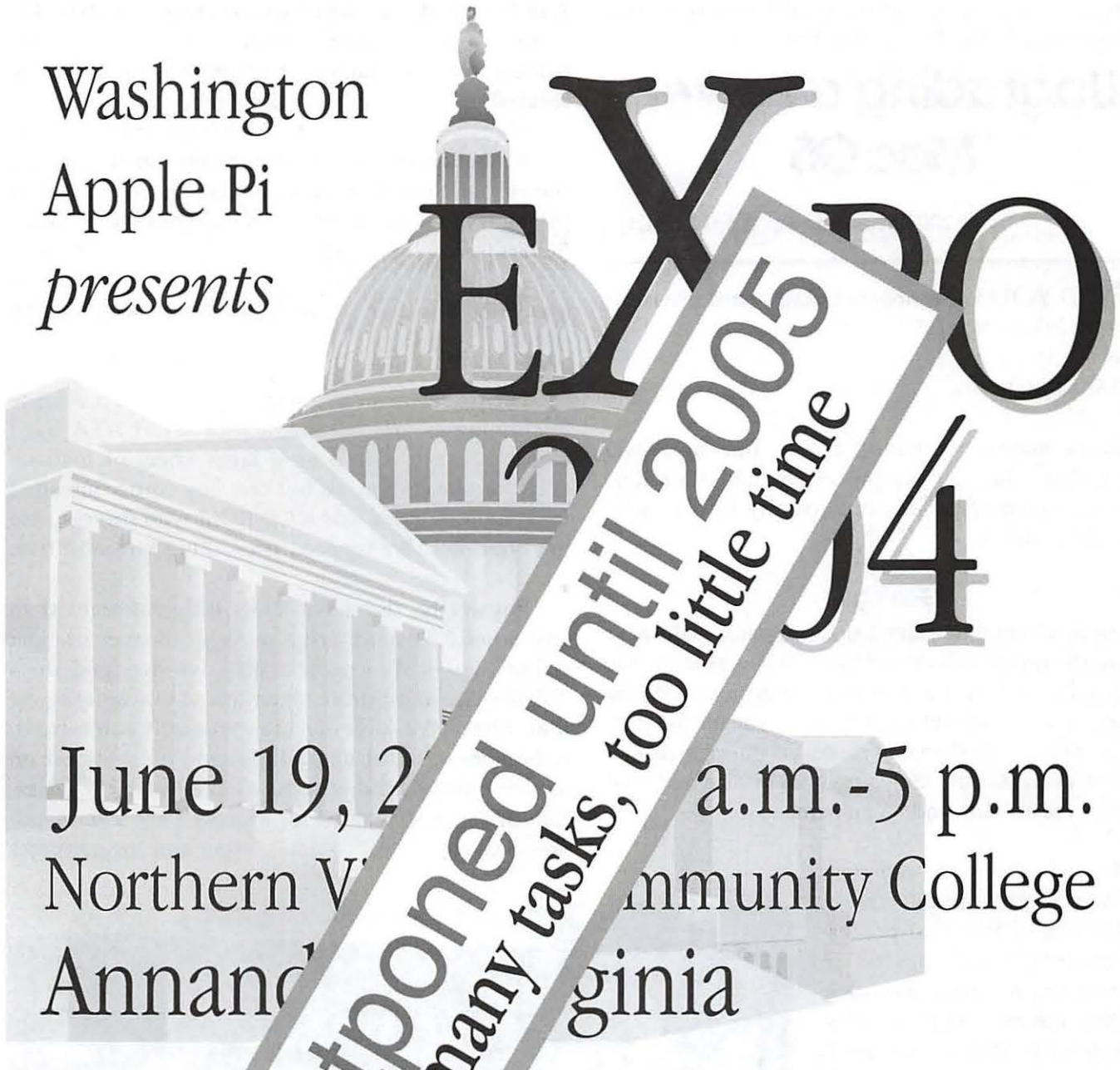
Inside the back cover is a note: "Visit www.nostarch.com/apple2.htm for updates, errata, special offers and other late-breaking information about *Apple Confidential 2.0*." As of this writing, it contains no updates, errata or special offers, just an advertisement for the book, a table of contents, and quotes from entirely positive reviews.

But I like it

Despite all the flaws, I do like the book. It is not a "definitive" history, and it stands in desperate need of aggressive editing and competent indexing. When viewed as a casual popular history of a company chockfull of colorful, unintentionally entertaining people, it is a good introductory guide, and on those terms I can recommend it.

But check your facts before quoting from it.

Owen W. Linzmayer, *Apple Confidential 2.0*. No Starch Press, 2004. x, 323 pp. ISBN 1-59327-010-0. $19.95
http://www.nostarch.com/ ■



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June 19, 2 a.m.-5 p.m.
Northern V mmunity College
Annand ginia

First Ann ntic Mac User Group Expo

Now c
Vendors
Sponsors
Demonstrations
Volunteers

Contact:
Washington Apple Pi
Vice President for Programs
vpprograms@wap.org

Upgrading a Power Mac G5

© 2004 Washington Apple Pi Labs

"DO YOU know how to install a hard drive into a Power Mac G5?"

"Absolutely!"

To be honest, we hadn't a clue. But the Power Mac G5 had dual 2 GHz processors and 1.5 billion bytes of memory. For the opportunity to play with one, we'd fake it.

Getting In

As mentioned in other *Journal* articles, getting access to the inside of a Power Mac G5 is very easy. You flip open a latch on the rear of the machine, and then remove a large aluminum plate. Underneath the plate is a clear plastic air dam that routes air through various sections of the G5, making sure it stays nice and cool. Remove the air dam and – you're in.

To add or remove memory, you need to pull out the fan (or, in the case of the dual-processor models, fans) located in front of the memory modules. The fans are molded into a plastic assembly that easily pulls out. Then you insert memory, in matched pairs, in the RAM slots, and reseat the fan assembly. Easy.

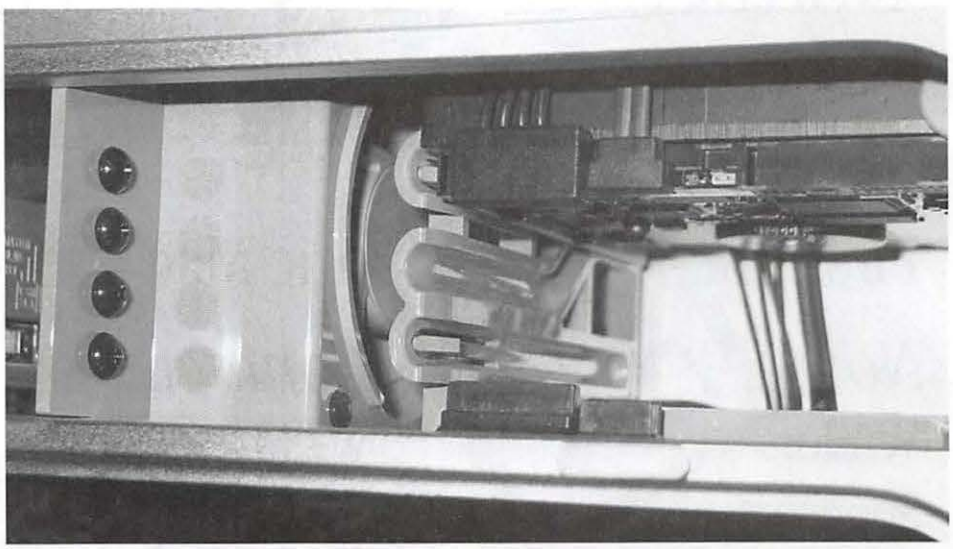
Getting farther in

To add a drive – we hadn't a clue. Just from looking inside, it seemed obvious that one drive was already in place (of course), in a funky plastic assembly that looked entirely unlike any hard drive mounting rails we'd ever seen before. We thought we could fake it without the manual, but the owner, suspicious of our enthusiasm, made us read the manual. Or at least a few pages of the manual.

And the manual confirmed our suspicions. To the left of the drive cage is a bulkhead with four plastic screws. These aren't really screws, but "drive guides." And the funky plastic assembly is the drive cage, with the top slot filled and the bottom one awaiting another drive. See the accompanying photo, "Step One."

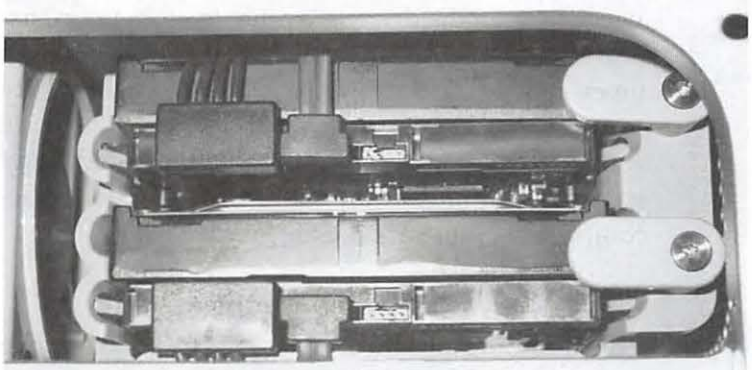
The drive we were going to install was a Seagate Technologies 160 GB Barracuda serial ATA hard drive. It came with a very large sheet of instructions for installation, all but one tiny corner intended for Windows users, and a CD-ROM with drivers, also for Windows. We ignored everything but the drive.

Physically, the drive looks little different than any other 3.5" hard drive introduced over the last twenty years. To confirm this, we dredged up a 230 MB Quantum drive taken out of maybe a Power Mac 7200. (We have no idea where it came from, to be honest. But it had a little red Apple sticker on it, so it probably didn't come from a Dell.) The Quantum drive, new, retailed for around $500. The brand-new Seagate drive, 700 times larger and several times



Step One: figure out the lay of the land. To the left you see the four plastic screws, which Apple calls "drive guides," awaiting use. The top drive bay is full, with a 160 GB serial ATA drive. The bottom one cries out to be filled. (You can actually hear the cries if you get close enough.) (Photo by Lawrence I. Charters, taken with a Canon PowerShot G3 digital camera.)

Step Two: marvel at changes in technology. The drive on the left is a brand-new Seagate Technologies 160 billion byte Barracuda serial ATA hard drive, purchased for $100 in February 2004. The drive on the right is a Quantum ProDrive LPS 230 million byte SCSI drive originally bundled with (we think) a Power Mac 7200. (Photo by Lawrence I. Charters, taken with a Canon PowerShot G3 digital camera.)



Step Three: both drives are in place. The plastic tabs on the right, labeled "A" and "B" for no earthly reason that we could see, rotate down over the back of the drive, keeping it from slipping out if, say, your 40 pound G5 were to accidentally get knocked over by a Clydesdale. (Photo by Lawrence I. Charters, taken with a Canon PowerShot G3 digital camera.)

faster, was purchased for $100. See the accompanying photo, "Step Two."

After removing the plastic screws from their storage area inside the G5, we screwed them into the sides of the Seagate drive, instantly transforming them from plastic screws to "drive guides." There are four of them, two per side, since, heavens, you certainly wouldn't want an *unguided* drive in a Power Mac G5.

The drive was next inserted into the G5's drive cage and, amazingly enough, the "drive guides" fit snuggly in the slots and the drive slid smoothly into place. (But they still look like plastic screws to us...)

We then pondered for some time how to connect the drive to the computer. There were some cables sticking out just below the drive, but they didn't seem interested in moving. So we consulted the manual, which had a line drawing vaguely suggesting that, yes, these were the cables we needed to attach to the drive. Exerting a bit more force, we found that the cables would, indeed, pull out enough to clip on to the end of the drive, one cable for power and the other for data. There is also a gray plastic tab that you rotate down to lock the drive in place, and you are done. It was almost too easy. See the accompanying photo, "Step Three."

Next, we put the air dam back in place, put the cover plate back in place, and turned on the power. There were no bright flashes, no plosive sounds, and no smell of smoke, so the drive (and the Pi Labs crew) passed the first test.

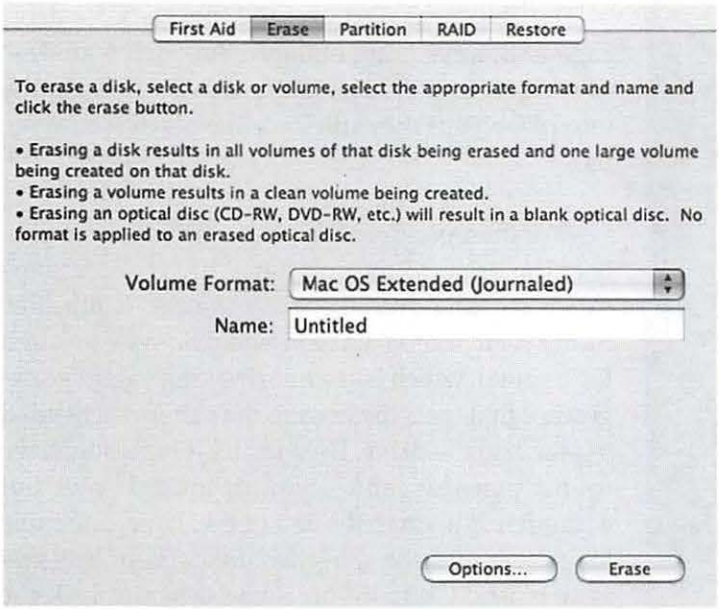
1.3 trillion bits

After logging in, the G5 greeted us with a message saying it had an unformatted device, and did we want to do something about it? We said no; we had other plans.

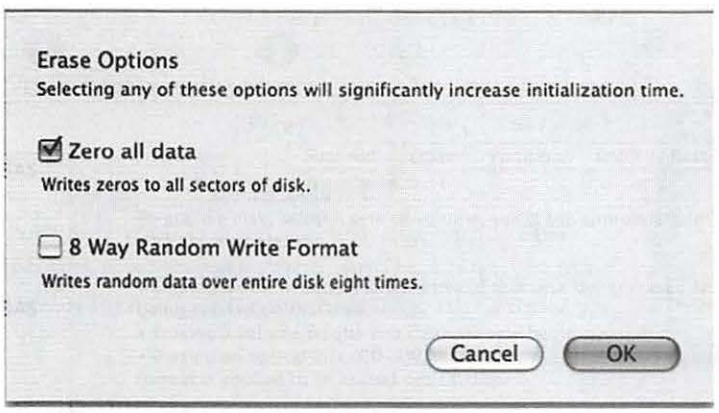
Our first step was to launch System Profiler (in Applications/Utilities) and look at the ATA bus. As we suspected, the drive we installed was identical to the one that came with the Power Mac G5: a Seagate ST3160023AS. The only differences were in the serial numbers.

We then launched Disk Utility (in Applications/Utilities) and told it to erase the new drive. It offered a choice of Mac OS Extended or Mac OS Extended (Journaled). Without going into detail why, we selected Journaled, since this offers some nice protection against certain hazards at a very slight cost in speed. Then we clicked the Options button. See the accompanying illustration, Step Four.

You don't *have* to press the Option button to erase



Step Four: erasing the drive was easy. We launched Disk Utility, selected the proper drive, pressed the Erase tab at the top, selected Mac OS X Extended (Journaled), and then pressed the Options button, down at the bottom.



Step Five: selecting zero all data will make erasing the drive much slower (especially on very large drives), but it also forces the Mac to actually visit, and write to, every byte on the drive. You'd like to know the entire drive is in decent shape before storing things on it, so spend the extra time and select the first option. If you want a very thorough test, select the second option, which takes eight times as long but definitely does confirm, one way or another, the health of your drive.

the drive, but since this particular drive will presumably be holding something important, why not make an effort to be careful? The Option button reveals two choices, "Zero all data" and "8 way Random Write Format." As you might expect, the first option will write zeros, expressed in binary, to every single byte on the drive. And if for some reason it can't write one of the 1.3 trillion bits necessary to perform that task, Drive Utility will give you an error message. In other words, this option is a cheap and easy way to test the drive before you start putting your precious data onto it.

"To add or remove memory, you need to pull out the fan (or, in the case of the dual-processor models, fans) located in front of the memory modules. The fans are molded into..."

The second option is designed for erasing drives before they are discarded or used for a new purpose. In theory, this is an even better way to test a drive: every byte on the drive is written to eight times, using random data. Unfortunately, since this takes eight times as long, and this drive had a 160 billion byte capacity, we simply didn't have the patience. We wanted to play with the G5, not have it spend a day writing random junk on the hard drive. See the accompanying illustration, Step Five.

Everything works

Even zeroing all data on a drive this size takes quite a while, so we did other things. When we happened to notice it was done, we quit Disk Utility and admired our handiwork: a really huge, empty drive. What could we fill it with in a hurry before the owner showed up to claim his property? QuickTime clips? Copies of Apple's electronic license agreements? A few day's worth of the Congressional Record? Surprisingly, there just wasn't enough stuff floating around within easy reach to make even a dent, and we tried.

Adding the drive was easy. It was fun. It was educational. And it was returned to the rightful owner. How sad. ■

The Washington Apple Pi Elections

THIS IS A year of changes and firsts for our election this year. Under the new Washington Apple Pi Bylaws, members vote for 15 Directors who are divided into three classes or terms of office. For this first year, you will be voting for 5 directors in each class. In subsequent years, members will be voting for 5 Directors running for three year terms and voting to fill vacancies which may have come about in the other two classes. At their first meeting the Board of Directors will vote to fill the offices of President, Vice Presidents, Secretary and Treasurer from the elected directors.

This is also the first year when voting will take place online. Our TCS Committee has been working on the process for electronic voting since last fall. The link to the location of the electronic ballot will be posted on the Washington Apple Pi web page <http://www.wap.org> and on the first page of the TCS by May 1. The polls will close on May 31.

In order to vote, you will need to know your member name and password. Your member name was included with your membership card and is the same as your Washington Apple Pi email address. It is also used to log on to the TCS. Use your usual password or the one that was included on the card. If you do not know your password, go to the TCS <http://tcs.wap.org/> and click on "Help! I've lost my password." If you do not know your member name or password, please call the office during regular business hours to have one of our volunteers assist you in learning it. Our office is normally open from 10 a.m. to 3 p.m. on Mondays, Wednesdays, and Fridays, and from 7 p.m. to 10 p.m. on Tuesdays.

Members who are unable to cast an electronic ballot may request a paper ballot by submitting a request for a paper ballot to the following address:

Washington Apple Pi Elections Committee
12022 Parklawn Dr
Rockville, MD 20852

postmarked by May 15th 2004. The request shall include a brief description of the reason(s) for the member's inability to cast an electronic ballot and a stamped, self-addressed envelope for the return of the ballot to the member's address of record.

The Election Committee will fulfill any requests for paper ballots on the next Washington Apple Pi business day.

Paper ballots should be completed and placed in a sealed envelope with the member's name and Washington Apple Pi membership on the outside. Mail the ballot to:

Washington Apple Pi Election
12022 Parklawn Dr
Rockville, MD 20852.

Paper ballots must be delivered by US Mail and must be at the Washington Apple Pi offices by May 31. The Election Committee will collect and tabulate all paper ballots and add those to the results from the online voting.

Candidates for Election to the Board of Directors for the 2004-2005 Membership Year

Running for a three year term of office:
Bob Jarecke
Abraham Brody
Catherine D. S. Diebold
Dick Rucker
William (Bill) Bailey

Running for a two year term of office:
John D. Barnes
Bill Diffley
Craig Contardi
Jim Little
Nancy Little

Running for a one year term of office:
Frank Zappacosta
Dick Sanderson
Gene Haddon
Dr. Herbert Block
Cheryl Lavoie
Cynthia Cole

Candidate Statements

Running for a three year term of office:

Bob Jarecke

Hi Fellow Mac Users and WAPi enthusiasts....

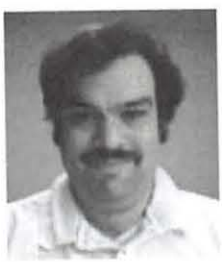
My name is Bob Jarecke and I am running for a 3 year position on the WAPi Board. I am a retired military officer and have been an avid Mac user since introduced to them in 1996 by my wife... God Bless her!! My enthusiasm for the Mac has grown ever since and the total number of Macs I own or have owned at last count was 16!!

I have been a lurking member of the Pi since 1999 and recently decided to get more involved. I am now active in the Reclamation program, slaving away at the old donated machines and braving cut fingers and cranky old systems. We have done a lot in the past few months and I see great things being done as we attack the mountain of old Macs that need to find a new home.

I am now looking at participating on a more committed level. I would bring to the Board a quiet, contemplative point of view. I enjoy creating solutions to help others and I think I could be instrumental in moving the organization forward with better services and opportunities for every member. I am anxious to learn more about the Pi, how it operates, what it provides and what can be done to improve it.

Disclosure Statement: I am not employed by nor do I receive any financial compensation from any computer company. Furthermore. I have no affiliation with any of the same, short of owning a small amount of Apple Computer Corp stock. Long Live the Mac!!

Abraham Brody
Silver Spring, Maryland



I have been an Apple products user for over 20 years. I enjoy working with other Mac users, and learning what other Mac users find useful in their computer usage. As a Pi Tuesday Night Clinic technician not only do I aid users in understanding their computers, but also I make every effort to help them enjoy their computers more. I share my past experiences, and try to learn how others have enjoyed Apple products as well. As a member of the board, I'd like to extend my experience to making the Washington Apple Pi continue its quest of getting all Apple users to understand their products better, and to meet others who have similar needs, and bring users together who have similar needs to be part of the same organization. I'd like to continue the board's fostering of communication between members.

Disclosure Statement: I have rendered support on an freelance basis, making up to a call a month helping people with their Macs. I also hold 71 shares of Apple stock. I am a guru at the Tuesday night clinic, attending almost every clinic of the year. I voluntarily help out on the Apple Discussions board at http://discussions.info.apple.com/ every day and have for over 3 years. In the past I was part of Apple's Demo Day program at Circuit City and CompUSA, though only attended 3 such marketing day events. I don't believe these are conflicting, since my primary job doesn't even use Macs and I work full-time for the Federal Aviation Administration, and have for the past 5 years.

Catherine D. S. Diebold
Vienna, Virginia

My professional life has been in the administrative support sector both volunteer as well as paid. As a volunteer with Apple Pi I am once again in the same world and am hoping to continue volunteering in the Apple Pi office. I have worked with Apple Computers since the first one arrived on the scene in Buffalo, New York, continuing and enlarging our 'collection' in Washington, DC and upgrading for the move to London, England where I helped in the American School of London's computer classes. I used my Apple IIe to write the American Embassy's newsletter as well as the newsletter for the American School. On returning to the United States I continued to use and upgrade my computers as the children and use demanded. My sons also have continued to use the apple, the oldest, a former Apple Pi member at the age of 15, used them for his business and the youngest is a graphic designer as well as a car buff.

Disclosure Statement:I have no financial connection to any organization that would present any conflict of interest.

Dick Rucker
Fairfax, VA

I'm Dick Rucker and a long-time member of the Pi who decided to become more active by helping set up and tear down a garage sale. That led to an invitation to join others afterward at the Pizza Hut for lunch and talk. Last September, I was in-

vited to become one of those who staff the front desk in the Pi office. Shortly after that, a seat opened up on the board, and I was invited to fill it. So, here I am, running for a 3-year term as a director.

In my short time as a more active member, I've come to better appreciate just how unique is the Pi. It attracts talented volunteers who know a lot more than I in so many areas, so I look for ways to be around them or at least converse with them on the TCS. The TCS is a wonderful resource, but is utilized by too-few members. My first attempt correct that is "Using the TCS Message Boards to Communicate with Pi members," an article published in the March/April 2004 journal.

Another worthwhile endeavor of the Pi is its computer reclamation project. After getting involved in one such project, I decided to find out who benefits from this effort. The story of my first attempt at this will hopefully be published in the May/June 2004 journal.I would appreciate your support in this election.

Disclosure Statement:I'm an engineer who is retired from The MITRE Corporation, McLean, VA. I spent my career in the analysis, design, and testing of air traffic control systems.

Other than owning a few shares of Apple stock, I can't think of anything in my case that might represent a conflict of interest. Oh, yes, I am a member, but not an officer in, the Virginia Macintosh User's Group (VMUG).

William (Bill) Bailey
Oakton, VA

I am a retired systems engineer and manager, having worked 33 years for Rocketdyne and TRW, Inc. I am a Mac addict and have owned Macs for many years; my wife and two adult children also have Macs. I'm editor and publisher (using Pagemaker and lately InDesign) of a newsletter for an International organization; I am also an active online trader/investor.

Disclosure Statement:I have no financial arrangements which would conflict with my being on the board of Apple Pi.Prior to this year, I was Director-at-Large for the Virginia MacintoshUsers Group (VMUG). I am no longer an officer with VMUG but continue to be an active member of both VMUG and Apple Pi.

Running for a two year term of office:

John D. Barnes
Chevy Chase, MD

The Washington Apple Pi faces considerable challenges as it goes into the 2004-2005 fiscal year. the 26th year of its existence. If we are to remain solvent while still providing services at the current level we need to recruit new members and retain old ones. We will also need to account for the way we use the resources that are on hand.

Many, if not most, of the people who are facing these challenges are new to governing the Pi. Some of them have committed to serve for two or three years. This reflects changes in our Bylaws that are designed to allow people to acquire "institutional memory" while bringing fresh ideas to the issues facing the Club. There are day-to-day issues of getting enough people to staff the front desk, of finding efficient ways to process membership transactions, and of communicating with members.

I, for one, welcome these challenges because I know that surmounting them will make the Pi a great place to be in the next 25 years, as it has been in the last 26.

Disclosure Statement:I operate a consulting service that provides "house calls" to the homes of Macintosh Computer users. While I receive referrals from the Pi for this business, I do not see any conflicts which would necessitate recusal in matters that normally come before the Pi Board of Directors. I will, of course, recuse myself if presented with an action in which my business interests could influence my decision.

Bill Diffley
Virginia

Please accept my candidacy for the Board of Directors of Washington Apple Pi. My qualifications can be classified in three areas:

1) I am a long term user of Apple computers. My first was an Apple II GS in 1988. I moved to Macintosh in 1993 and have been using the Macintosh since. I have used those computers extensively at home: finances, general purposes, and multimedia fun. At my children' s school I worked in a volunteer status where I repaired/maintained older Apple IIs and Macs. I also developed minor programs and uses for computers in the classroom. In general I have used Apple computers in many ways and my appreciation of Apple has only increased over that time,

2) I served in a variety of roles in school organizations: once as the PTO treasurer, then as a member of the school advisory board, then finally for two years as PTO president. Those roles gave me working within and heading volunteer organizations.

3) I have been a member of Washington Apple Pi for about 8 years and have found membership enjoyable and useful. For the past year I have served weekly as a volunteer in the Washington Apple Pi office per-

forming a number of clerical tasks.

I ask the opportunity to give the Pi my appreciation for Apple products, my experience as an officer in volunteer organizations, and the demonstrated desire to work for this fine Macintosh users group.

Disclosure Statement:1) I have no financial arrangements which would conflict (or give the appearance of conflicting) with the duties of the office of Member of the Board of Directors. I do own 100 shares of Apple Computer. 2) I have am not serving and have not served in the past two years as an officer or director of another computer user group.

Craig Contardi
Virginia

Washington Apple Pi has never been in greater need of an effective leadership team than now. While there have been events in the past that required the decisive action of the President and the board, they were to address acute problems reactively (much like President Bush has spend nearly his entire presidency reacting to September 11). With the apparent end to a New York Macworld (and therefore the bus trip) and the steady erosion of demand for a "Garage Sale" twice a year, the Pi must now establish other services that both benefit members and defray the cost of annual dues. Doing nothing means a slow spiraling descent of offering less value to members. The current administration has already begun the transformation by committing to having a supplemental CD-ROM to sell at every meeting. This is just the beginning, however.

My name is Craig Contardi, and I have served the past two years as Secretary. Please give me an opportunity to be part of the core leadership for the next two years by casting a vote for me as a Class B Director.

Disclosure Statement: I have no financial or political conflict of interest in serving as a member of the Washington Apple Pi Board of Directors. I also have not been an officer in any computer user group other than Washington Apple Pi for the past 15 years.

Jim Little
Maryland

I am a long time member from Apple][days. In the past I have assisted in the disk library. Most recently I have served two one year terms on the board of directors. Since we no longer have paid office staff I assist in tasks required in keeping it open. A major problem of this organization is replacing lost members. The new board will be faced with stemming this loss. I am willing to continue working on this problem. I am retired so work days are available for these tasks. My technical background in computers included interfacing laboratory instruments to data systems, programming FORTRAN, Basic, and C.

Disclosure Statement: I have no financial interests that would conflict with the goals and purpose of Washington Apple Pi.

Nancy Little
Maryland

Washington Apple Pi is a volunteer organization and I would like to continue to contribute my time to help WAP support all Apple computer users. This next year is a critical time for our group and I would like to continue to work for the Pi.

Disclosure Statement: I have no financial interests that would conflict with the goals and purpose of Washington Apple Pi.

Running for a one year term of office:

Frank Zappacosta
Alexandria, VA

My name is Frank M. Zappacosta and I am running for a one year term as director of Apple Pi. I have been a member for a number of years, and am a retired Accountant/Auditor. I have served as Chairman of the Audit Committee, and if my memory serves me correctly, performed the first real review of the Pi operations which resulted in a number of changes, such as changing the office staff, consolidation of the various bank accounts, cleaning up a room with copies of the Pi Journals many years old, amending some of the bylaws, etc. I believe that the Pi needs some sound management and financial direction, and if elected will try help to provide it.

Disclosure Statement: I have no direct financial interest in Apple or other computer company, however, could have an indirect interest through some of my investments.

Dick Sanderson
Potomac, MD

I joined Washington Apple Pi shortly after buying an Apple II+ in 1981. I have owned 2 Apple IIs and 12 Macintoshes since then. I

retired five years ago after working 42 years for the Federal Government as an Architect and Engineer. My last 15 years with the Government were spent developing and managing databases on PCs, Macs, and mainframes. I am single, live in Potomac, MD and currently have 4 Macs, 3 printer, 2 scanners, and a CD burner on an Ethernet network. I enjoy taking digital pictures. I started taking pictures on a film camera in 1944 in grade school. I started taking digital pictures in 1999 and am now on my fourth digital camera, a Nikon D-100 SLR camera. I take about 400 pictures a month. I have been Treasurer of WAP for the last two years, served on the office staff, and participated in the Graphics SIG, retired SIG, and Imovie SIG. I am very active in my church where I am an Elder, Treasurer and a member of the Executive and Communications committees. WAP has given me much over the past 23 years and it has been my pleasure to return some thanks to WAP.

Disclosure Statement: I have no financial connection with any organization that would present any conflict of interest.

Gene Haddon
Chevy Chase, Maryland

My first computer ever was an Apple IIe which I bought in 1987 and kept for a very long time. I now have a 17 inch iMac and a Powerbook, both running Panther. I have been a member of Washington Apple Pi most of the time since then. I have taken many tutorials. I have been a member of the Retired SIG, first under the leadership of Chuck James and now John Barnes. I am also a member of the Graphic Arts SIG and the new iLife sig. My main interests on the Mac are photographs and music.

Being on the Board of Directors for a year has given me an understanding of the difficulties and work involved in running an all volunteer organization of the size of WAP. Finances, scheduling, membership and teaching all require the efforts of many dedicated people. It has been fun to be part of the process and I would like to help in getting more members to share in the fun.

I moved to Washington in 1966 with my husband and three children. I am retired after a long career in real estate. My grandchildren and my family keep me busy, and I like to keep learning new stuff on the Macs. The folks in the Pi have been patient and helpful in this effort.

Disclosure Statement: There are no financial conflicts.

Dr. Herbert Block
Silver Spring, MD

I have been an enthusiastic owner of Mac since my acquisition of an Apple GS III in 1987. I progressed to a Mac Classic followed by a Quadra, then to a Performa , next a B&W G3. I now use a 17" iMac. I have been a member of WASHPI since 1987. I have kept abreast with each new operating system. My current OS X is Panther.

Disclosure Statement: I am retired and not employed in any capacity as a paid computer specialist. Financially, I own stock in Apple and Sun Micro System.

Cheryl Lavoie
Virginia

I shall take on the tasks given to me by the board or any of its officers. Being an artist and having a fine arts background, I see my contributions best used in the graphics and web design areas. I am a web designer, not a web developer so I would be of no use in the technical aspects of the Pi. Rockville is about 25 miles from Alexandria, so for the board meetings I hope there could be a car pool organized.

Disclosure Statement: I have no affiliations with Apple, nor do I hold any stocks in said company nor am I related to anyone who is employed by Apple and/or owns stock or other value in Apple's company or its subsidiaries.

Cynthia Cole
Maryland

An Apple user since the 80's and a Pi member since 1997, I have worked for 15 years in the computer and telecommunications industries. I am now exploring options in the field of nutrition. At the Pi, I am a repeat and enthusiastic patron of the Tuesday night clinic as I own three Macs. I have also volunteered at and patronized the Pi's garage sales. I think the Pi is a terrific resource for Apple users and I would be happy to help support it on the board.

Disclosure Statement: I currently own shares in Apple Computer, Inc. I have not been an officeror director of any other computer user group.

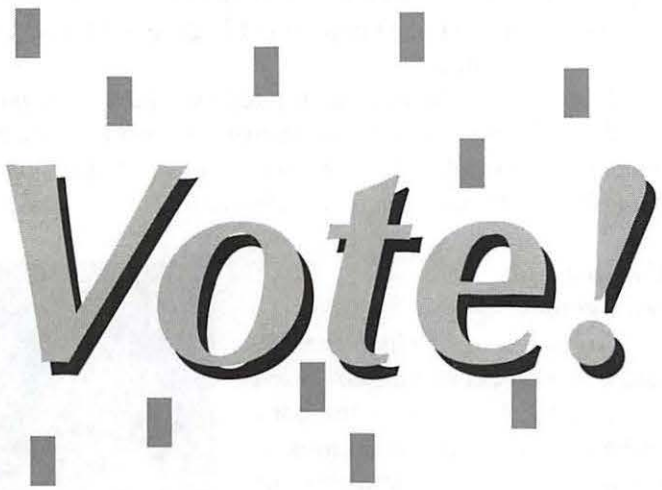
(continued next page)

Board Meetings Attended by Directors During the Current Term (June 2003-March 2004)

Running for a three year term of office:
Dick Rucker (Appointed to Board in January 2004)
3 of 3

Running for a two year term of office:
- John Barnes — 10 of 10
- Craig Contardi — 8 of 10
- Jim Little — 10 of 10
- Nancy Little — 10 of 10

Running for a one year term of office:
- Dick Sanderson — 9 of 10
- Gene Haddon — 6 of 10
- Herb Block — 6 of 10 ■



Washington Apple Pi holds their annual election every May. This year, the Pi will be voting online, in a chad-free election using your browser. No stamp or envelopes to lick, no little ovals to fill, no holes to punch, no levers to pull. Just point your browser **(between May 1 and May 31)** at:

http://vote.wap.org/

and make your selections for the 2004-2005 Washington Apple Pi Board of Directors.

If you are having problems with your Pi account name and password, visit:

http://tcs.wap.org/password

for assistance.

Power Mac G5: Second Look

© 2004 Washington Apple Pi Labs

IN JANUARY, Washington Apple Pi Labs had a short, brief, but much-cherished affair with a Power Mac G5 single-processor 1.8 GHz machine (see Washington Apple Pi Journal, January/February 2004, pp. 17-24). After little more than a week, however, this gleaming aluminum beauty left us. She had astonished us with her charm, her grace, her speed and raw power. We went into mourning.

Twice the fun

But the mourning was brief. The same benevolent entity that loaned us the first Power Mac G5 ~~foolishly courageously~~ generously loaned us a second, this time a Power Mac G5 with two 2.0 GHz processors. How lucky can you get?

This second windfall was not without some confusion. We first learned about the loan when a small brown box, about the size of a trade paperback book, arrived via FedEx. Opening it, we found a note that claimed the cardboard box was a G5, and two memory modules. Holding the box in one hand, one Lab guru commented that it was "amazing how they'd managed to miniaturize the machine." We assumed, correctly, that a larger box would soon be arriving, and a couple days later one did.

Unlike the first G5 we reviewed, this one arrived in a brown box, and the dramatic Power Mac G5 packaging was hidden away inside the more mundane carton. Power Mac G5s were still so rare – especially twin processor models – that Apple had apparently succumbed to pressure from FedEx and UPS and started shipping them in less obvious containers.

Naturally, the first thing we did after unpacking the machine was open it up. Sure enough, there *were* two processors! Oh, we'll have fun, fun, fun till Daddy takes the G5 awa-a-ay...

The next thing we did was plug it into an ancient Sony Trinitron display (the same one used in the first

review) and power it up. We immediately checked under the Apple menu for "About This Mac," and discovered the machine came with Mac OS X 10.2.8, and had 2 GB (two billion bytes) of RAM. Cool! Before we could do anything else, the System Update popped up and prompted us to update some stuff. We tried, but every update failed.

Bittersweet memories

This was somewhat curious. These same software updates had been installed successfully on other machines, so what made them fail on the Power Mac G5? We decided to launch System Profiler (in the Applications/Utilities directory) and – the machine promptly crashed with a kernel panic. We panicked, too: as Professor Venkman once said, "Generally, you don't see that kind of behavior in a major appliance."

Wondering if we had a problem with the hard disk, we launched Disk Utility (in the Applications/Utilities directory), and this promptly crashed the machine with another kernel panic. One of the Lab gurus repeated the famous words of Professor Indiana Jones: "I think we got a big problem."

At this point, a brief conference of Lab gurus suggested it might be a memory problem. ("Conference" means one person had one idea, so we went with it.) And since our generous benefactor had shipped us two memory modules, why didn't we try substituting them for those in the machine?

This worked out surprisingly well: the machine booted properly, it ran System Profiler without any problems, and it ran Disk Utility without any problems. On the down side, the two memory modules proved to be 256 MB each, so we now had 512 MB – one quarter of what we started with. Bummer.

Finding aliens redux

Given the choice of playing with a dual-processor Power Mac G5 with 512 MB, or one with four times as much memory that wouldn't actually work, we decided to reluctantly make do. As with our first test machine, we fired up SETI 3.08, and had it find some aliens for us (see the original article for details). The results:

Power Mac G4/400: 21-22 hours per SETI work unit

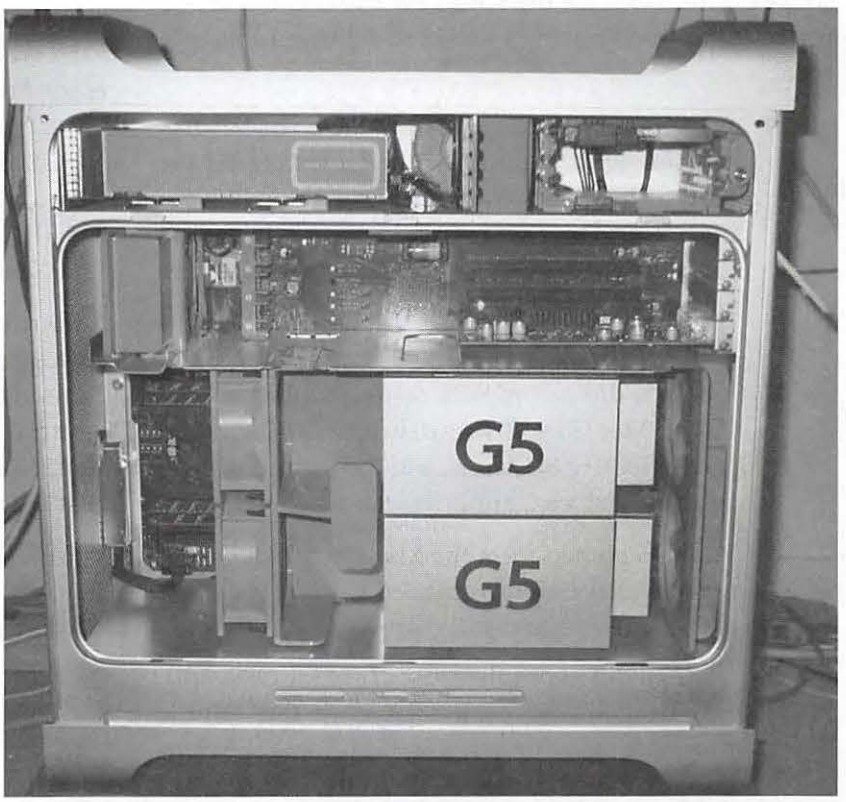
Power Mac G4/dual 1000: 11-11 1/2 hours per SETI work unit

Power Mac G5/1800: 5 1/2 hours per SETI work unit

Power Mac G5/dual 2000: 3 hours, 15 minutes per SETI work unit

This impressive: SETI is just one application, and one that isn't even optimized for the Power Mac G5. Yet in our first try, the dual processor G5 was just shy of 1.7 times faster than the single processor G5 we'd tested earlier, and more than 6.5 times faster than a Power Mac G4/400 of just a couple years ago.

SETI work unit times, as mentioned in the previous article, tend to vary, depending on the data being analyzed. But over the course of a week, the dual processor G5 seemed to consistently turn in times of between three and 3 1/2 hours per work unit. We were giving some thought to trying some other processor intensive tasks, but we got distracted by a cat: Panther.



Nobody in Washington Apple Pi Labs is the least bit skeptical. Nope, not a bit. So why did we immediately rip the cover plate off the G5 and check to see if the box was correct? Did it really have two processors? Yes, it did! It also had twice as many fans, too. (Photo by Lawrence I. Charters, taken with a Canon PowerShot G3 digital camera.)

Moving to Mac OS X 10.3

We knew we'd have to give up the machine quite soon, and we knew the machine was faster than a single processor Power Mac G5. Further benchmarks seemed pointless. On the other hand, we were curious to see how the G5 worked with Apple's latest operating system, so we decided to upgrade.

About this time we got an E-mail that suggested the two 1 GB memory modules we'd removed might work just fine if we left the original 256 MB modules in place and added the higher capacity modules in vacant slots. We tried this, and it worked. We ran lots of test, and it *still* seemed to work. Exactly why it worked, nobody seemed to know (Apple claims the slots must be used in pairs, but are otherwise pretty much identical.) Now armed with 2.5 billion bytes of memory, we prepared the Power Mac G5 for Panther.

A clean install seemed like the best idea. The two kernel panics we experienced right after getting the machine might have caused some kind of corruption, so we decided to erase the hard disk. We also wanted to retain the option of using Classic, so followed this protocol:

- After booting from the Power Mac G5 install disk (it came with Mac OS X 10.2.8), we erased the hard drive. We took the additional step of zeroing all sectors. This greatly increases the length of time necessary to format the drive, but it ensures that every byte on the drive is written over and tested.
- We then did a complete restore of the original Power Mac G5 software distribution, including Mac OS X 10.2.8, Classic, and the various iPhoto, iMovie, iCal, etc., applications.
- We then booted from the Mac OS X 10.3 Disc 1, and ran Disk Utility to check the drive. The drive claimed it was perfectly happy.
- We then did a complete install of Mac OS X 10.3, including all the foreign language files, all the programming libraries, Xcode Tools – everything. We doubted we'd need a tenth of the stuff installed, but we had the drive space.
- We then booted the machine, and had Software Update grab a whole mass of assorted updates.

This took the better part of an afternoon (zeroing the drive to test for defects can take a long time, especially with a large drive), so we then decided to, reluctantly, go home.

Blinding speed and power. Ho-hum

For the next few days, we had great fun playing with the G5 under Mac OS X 10.3. While we could prove, via various measurements, that the dual 2 GHz model is faster than the 1.8 GHz model, in routine use you soon just take the speed for granted.

What was more noteworthy was the ease of running concurrent tasks: no matter how processor intensive (or, with 2.5 billion bytes of RAM, memory intensive) the tasks, you could run lots of things at once, and for all practical purposes not worry about one task slowing down another. Sort large databases? Do complex transformations with Photoshop? Crunch down a million points of data in a statistical package? Find aliens? Render video clips? All at the same time? A piece of cake.

With some trepidation, we decided to try it with Macromedia's Dreamweaver MX 2004. The first release of this software was widely reviled for being so slow that it was all but unusable, even on high-end dual-processor Power Mac G4 machines. On a dual processor Power Mac G5, however, Dreamweaver MX 2004 seems at least as quick and crisp as the previous versions on older Macs. [Macromedia has since released an update that allegedly makes Dreamweaver MX 2004 much faster. This came out too late to test.]

One obvious problem with such speed: you need more screen real estate. Running several complex programs at once is very hard to do on an ancient 17" Sony Trinitron. A couple 23" Cinema displays, on the other hand, would be perfect. Absurdly beyond the means of most mortals, but perfect.

We reluctantly returned the dual 2 GHz Power Mac G5 to its owner. Then we turned to our piggy banks, and dreamed aluminum tower dreams. ■

Old Fart's Guide™ to Internet Searches

by Aaron Rosenzweig

Book Review by Stuart Bonwit

I PREVIOUSLY reviewed Aaron Rosenzweig's book, *Old Fart's Guide™ to the Macintosh* (*Washington Apple Pi Journal*, March/April 2003, p.27). The better qualities of that book are very similar to those of the book currently being reviewed.

Author Aaron Rosenzweig is obviously a very good researcher who knows how to mine the Interenet. His accounting of historical events and things is particularly impressive.

Mr. Rosenzweig has produced a well written, well organized, and, most importantly, clear book on the use of the Internet for searching. The book cover tells us (Fig. 1), this is "A book for anyone interested in mastering the World Wide Web." The Preface starts, "This unique book caters to the person who has heard the word *Internet* or the phrase *World Wide Web* but is not sure what they entail or how to fully utilize them." One should not be fooled. While the book starts off expecting that the reader is as just described, it ends with subjects that are quite advanced.

The physical layout of the pages is well designed. Every page has a sidebar in which the chapter title is displayed in the lower corner with the page number. Notes highlighting the important points of a paragraph are printed adjacent to that paragraph. And images are included alongside the paragraphs describing them.

In his chapter "How do I Find What I'm Looking For?," Mr. Rosenzweig provides step-by-step instructions that should give anybody confidence in using the Internet.

I learned a number of things. For instance, Google will provide a human being to help you do a search. Another that should have been obvious but wasn't is the syntax of a request. I was looking for a review of a show that played Off-Broadway and is now coming to Broadway. Instead of typing:

Assassins review

I should have typed:

"assassins" review

This indicates that the word "Assassins" is a required word and "review" is what is being sought.

Chapter headings listed in the Table of Contents give some idea of the topics coverage:

What is the Internet?
What Kind of Computer do I Need?
What is a Web Browser?
What is a Search Engine?
How do I Find What I'm Looking For?
Internet Pitfalls
Old Fart's Guide™ Forums
Useful Web Sites
Glossary
Index
About the Author

The writing style is very easy and clear. There is no techno-babble and, when specific computer terms are introduced, they are clearly explained. The book is comprehensive and up-to-date.

The title of this book may give the reader some pause. It has been OKd by the *Journal's* powers-to-be. For a more complete explanation please see the previous article.

The book is published by Cocoa Nuts Technology, LLC and may be ordered from Amazon.com for $19.95.

I would strongly recommend this book for *any* Mac Internet beginner and I think any Mac user would benefit from it. ■

Upgrading My Pismo PowerBook: Benchmarking the Result

By Richard A. "Dick" Rucker

MY TRUSTY PISMO PowerBook, purchased at a discount after the first generation titanium PowerBook G4s were announced in January, 2001, developed a problem with its hard drive shortly before its AppleCare policy expired. When I got it back from Apple's repair center, I discovered that Apple had replaced the original Toshiba 9.4 GB, 4200 rpm drive with a Fujitsu 16.9 GB, 4200 drive! Also, though my Pismo had not yet developed a problem with its display, Apple replaced it anyway, presumably because of the high failure rate experienced with displays in some Pismo PowerBooks.

So here I was with a new hard drive and display on a laptop that has served me rather well. I've appreciated having the features of the Pismo, even though I haven't yet used them all. For example, in addition to its two FireWire ports and 2 USB ports, it has a slot for a PCI card as well. It also seems built to take quite a bit of punishment.

Its 400 MHz G3 processor has been adequate for most things, but in Photoshop performance on occasion seemed slow. In GarageBand, some songs failed to play because either the processor or the hard disk was too slow. Both of these programs were designed to take advantage of the G4's Altivec processor.

I learned of a new upgrade announced for the Pismo by Daystar Technology. The attractive features included:

• Upgrading from a 400 MHz G3 to a 550 MHz G4 should mean a boost in speed of 37%, and *Altivec* processing, which distinguishes the G4 from the G3, should mean that software written to use parallel-processing instructions should run even more quickly, software such as Mac OS X itself as well as Photoshop and GarageBand.

• The upgrade uses Motorola's low power 7410 LE G4 chip plus low power cache components & electronics, so it can run faster *and* cooler, extending battery life by an estimated 20%.

• The upgrade comes with 1 MB of 250 MHz, adjustable speed, backside (Level 2) cache that minimizes the effect of slowdowns that might otherwise occur. According to Daystar, the existence of the faster cache provides over 75% of the performance attainable from the G4 chip, while the system bus accounts for less than 10%. (The Pismo came with a 100 MHz system bus, while the latest G4 PowerBooks come with a 167 MHz system bus.)

• Though a Pismo cannot be upgraded to support Quartz Extreme display processing, the G4's Altivec and faster clock should mean that display performance is improved. Since display speed had not been a problem for me before the upgrade, this was not a factor in my decision.

The specs can be found here:

http://daystartechnology.com/products/xlr8_products/ps_mspeed_G4_pismo.html

According to Daystar president Gary Dailey: "We've worked hard to create an upgrade program that provides a competitive reason for people to upgrade, rather than 'buy new.' With a PowerBook G5 rumored for late this year or early next, the MAChSpeed G4 Pismo allows a user to get Mac OS X G4 performance today and wait until Apple's next generation laptop is proven." That rang a bell with me as I had waited to buy a laptop from Apple until the Pismo with its 5-star rating came along, and it will probably be a year or two before a PowerBook G5 becomes a "must have" for me.

So I mailed my Pismo off to Daystar's facility in Buford, GA, for the upgrade. While they had it open, they also added an Apple Airport Card and 1.0 GB of RAM. I had my Pismo back in hand 3 days later.

Oh yes, Daystar did one other good thing: Upon receiving my Pismo back from the Apple repair facility for the second time — it took Apple two tries to get the new

display working properly — I discovered that my Pismo wouldn't recharge its battery. I noted this problem on a sheet of paper when I shipped it off to Daystar. The next evening, Gary called me on the phone to say that a technician discovered a broken diode and an open solder joint on the sound card. He asked me if I wanted them to fix that as well, and my answer was yes. My Pismo came back working fine and able to re-charge its battery once again.

The order for my upgrade shows these costs, not including the cost of the repair and shipping:

550 MHz MAChSpeed G4 Pismo upgrade $329

Apple Airport Card $69

1 GB RAM installed $250

The upgrade also includes a 2-button, scrolling mouse and XLRI MACh Speed Control utility software. The software provides an overview of the system and its current parameters, information on the processor, and controls for whether *thermal monitoring* is enabled, whether *L2 cache speed* is automatically or manually determined, whether *power conservation* is enabled, and whether *write-through* is enabled. As I type this, the utility shows:

> Processor core: **PowerPC G4 7410; 549.0 MHz; 24° C (normal)**
> Level 1 cache: **32 KB data; 32 KB instructions**
> Backside (Level 2) cache: **1 MB running at 219.7 MHz**
> Motherboard Memory: **1024 MB running at 99.9 MHz**

For more on this upgrade, see "Daystar MACHSpeed G4 Pismo Upgrade Review" by "road warrior" Charles Moore at:

http://www.macopinion.com/columns/roadwarrior/04/02/10/

A Faster Hard Drive is Added

After getting the upgraded Pismo back, I found it worked great and was more responsive than before, pleasing me very much, with one exception: GarageBand. It still complained about my slow hard drive, but Development Depot provided the answer:

> IBM-Hitachi 2.5" 60 GB Drive, 7200 RPM: $280
> MacAlley 2.5" Enclosure with ports for FireWire & USB-2: $50

The new drive replaced the 4200 rpm drive that Apple installed, and the Apple drive went into the enclosure as an external drive for backup. It was now time to see if I could measure some of the benefits of my upgrades.

Benchmark tests used:

Two criteria guided me in my selection:

> (1) should be simple to conduct and interpret and (2) should represent an aspect of performance I care about.

The tests chosen were:

Startup time: This is the elapsed time from power on, through the loading of the OS X 10.3.2 system software and the creation of the desktop, to the end of hard disk activity as a result of startup. I avoided upgrading to OS 10.3.3 until after these benchmark comparisons had been completed.

Copy folder time: A folder containing 560 items totaling 170 megabytes was copied then pasted to the desktop. Measured was the elapsed time between the paste command and when the coping process was completed.

Secure erase time: The folder copied to the desktop was securely erased, meaning that the command Finder > Secure Empty Trash was issued. According to the Help File for Finder, "Files deleted in this way are completely overwritten by meaningless data." Measured was the elapsed time between clicking on the OK button in the "Are you sure..." dialog and when the overwriting process was completed.

Launch Microsoft Entourage: This is the email client I use regularly, and the time it takes to launch has annoyed me when using it on my G3 Pismo. So if the upgrade helped with this, I would be pleased. Two cases were examined:

> (1) How long it took to launch when the Main Identity folder contained only what was put there at installation time or when Entourage was first

launched after installation. That Main Identity folder was approximately 400 KB in size.

(2) How long it took to launch when the Main Identity folder on my Pismo was copied from my main machine, a G4 desktop PowerMac. My Main Identity folder was approximately 135 megabyes in size.

Launch Photoshop 7.0 by dropping a 1.3 MB JPEG file on its icon. The time measured was from the time the mouse button was released until the photo file was opened in Photoshop.

Apply Photoshop 7.0 filters to the JPEG file opened above. Each filter was applied in turn using the default parameter values provided by Photoshop. The picture was restored to its original state before the next filter was applied.

Benchmark Test Results:

Startup time: G3 Pismo: 2 minutes, 10 seconds. Upgrading to a G4 didn't change that, but putting in a faster hard drive did. With the new hard drive, the G4 Pismo now boots in 1 minute flat.

Copy folder time: G3 Pismo: 1 minute to copy. Upgrading to a G4 didn't change that, but putting in a faster hard drive did. With the new hard drive, the G4 Pismo copied that folder and its contents in 15 seconds, 4x faster. Why four times, when the ratio of the disk drive rpm is 7200 /4200 = 1.7 times faster? I don't know.

Secure erase time: G3 Pismo: 10 minutes to erase. Upgrading to a G4 didn't change that, but putting in a faster hard drive did. With the new hard drive, the G4 Pismo erased that folder and its contents in 5 minutes, 25 seconds; i.e., 2x faster.

Launch Microsoft Entourage: G3 Pismo: 30 seconds with default Main Identity folder. The G4 Pismo takes only 4 seconds to launch with the default folder, regardless of the speed of the hard drive; i.e., 7.5 times faster.

With my much larger Main Identity folder, the G3 Pismo took 30 seconds, while the G4 Pismo with the slower drive took 18 seconds. The G4 Pismo with the faster drive took 16 seconds.

Launch Photoshop 7.0: G3 Pismo: 52 seconds. The G4 Pismo with the slower drive took 22 seconds. The G4 Pismo with the faster drive took 14 seconds.

Time to apply Photoshop 7.0 filters (seconds):

submenu > filter name	G3,	G4, slower drive	G4, faster drive
Artistic > Colored Pencil	54	16	16
Artistic > Water Color	47	12	12
Pixelate > Pointillize	15	15	10
Render > Lens Flare	05	03	03

As expected, the upgrade to the G4's Altivec parallel processor significantly reduced the amount of time required for three of the four filters applied. I have no explanation for why the "Pointillize" filter benefited from the faster drive, but not from Altivec. If anyone has an explanation, a letter to the Editor would be appreciated. (Operator error perhaps?)

Tests of Pismo with Garageband songs: Two folders of projects, or "songs," created in Garageband come with the application; one contains "G3 projects" and the other contains "G4-G5 projects." Since my goal was to stress the Pismo before and after the upgrades, I tested with the five songs in the latter folder.

A crude measure of the load imposed on the computer by each song is simply the number of sound tracks each song contains. For example, the song file "Glide.band" contains:

Real Instrument tracks:
drum kit, shaker, acoustic guitar, clean guitar, electric slide guitar, guitar licks
Software Instrument tracks:
electric bass, conga, Hollywood strings

In the order of the number of tracks they contain, the songs tried are:

Shufflin'_Piano_Blues	5 tracks
Daydream	8 tracks
Meadowland	8 tracks
Glide	9 tracks
Reflection	12 tracks

G3 Pismo:

Shufflin'_Piano_Blues: play-head movement jerky; stopped mid-play with the error message "Disk too slow or system overload."

Daydream: play-head movement jerky; stopped mid-play with the error message "Hard disk not fast enough to deliver all audio data in time..."

Meadowland, Reflection: stopped before playing anything with the error message "System overload. The song exceeds the processing power of your computer..."

Glide: interestingly, it played to completion without an error message, but the movement of the play-head was jerky.

G4 Pismo with 4200 rpm hard drive:

Shufflin'_Piano_Blues, Daydream, Glide: no error messages; relatively smooth movement of the play-head.

Meadowland: stopped mid-play with the error message "Hard disk not fast enough to deliver all audio data in time..."

Reflection: Stopped mid-play with the error message "System overload. The song exceeds the processing power of your computer..."

G4 Pismo with 7200 rpm hard drive:

Shufflin'_Piano_Blues, Daydream, Glide, Meadowland: no error messages; relatively smooth movement of the play-head.

Reflection: Stopped mid-play with the error message "System overload. The song exceeds the processing power of your computer..."

Conclusions

So far, I'm happy with the upgrades, but I haven't yet had enough experience with my "new Pismo" to say more right now. Anyone using Garageband with lots of tracks is going to want a 1 GHz processor or better, but for me that can wait. ■

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Controlling Spam with PostArmor X

By David L. Harris

I AM (STILL) running Mac OS 10.2.8 and the version of Apple's *Mail* that comes with it. At one time when I was routinely "bouncing" e-mail in my Junk folder, Mail suddenly quit. After that, I have never been able to get the Junk filter to work. (Using "Bounce" is not a good idea anyway: since the worst spammers have fake return addresses, all you get is bounced messages in return.)

Suspecting that the preference file "com.apple.mail.plist" in my user Library>Preferences folder might have gotten corrupted, I removed it and rebuilt my Mail folder structure. No luck. Since then, although I can designate Junk mail by selecting the offending message headers and clicking on the Junk button, sending those messages directly into the Junk folder, no incoming mail ever gets designated as Junk unless I do it manually. So I have still been receiving my full quota of junk mail—about 80% to 90% of my total mail volume.

Reading about the free-for-one-e-mail-account ***PostArmor X,*** I decided to try it. PostArmor is an e-mail proxy, with support for the POP (or APOP) protocol. You may also use it with an IMAP account. PostArmor lies between your e-mail client (in my case Apple Mail) and your e-mail server (e.g. mail.wap.org). It does not retrieve mail; it just looks at it while it is still on the server, and rates the probability that it is spam, based on rules already built in, or ones you add. It can rate messages as spam or UCE (Unsolicited Commercial E-mail) whether the sender is legitimate or not, but you can change filters so that a message with "ADV" in its header, for instance, will get through.

"Since then, although I can designate Junk mail by selecting the offending message headers and clicking on the Junk button, sending those messages directly into the Junk folder, no incoming mail ever gets designated as Junk unless I do it manually. So I have still been receiving my full quota of junk mail—about 80% to 90% of my total mail volume."

In setting up PostArmor, you must tell it where your e-mail server is ("mail.wap.org"), and tell your e-mail software to ask PostArmor for mail. Then you can use your usual e-mail software to get mail filtered by PostArmor.

PostArmor can work in GUI (Graphical User Interface) mode or in console (text-only) mode. I will describe only the GUI mode here, since that is what most individual users will want. PostArmor is written in Java, so that it works on any computer platform that can run a Java Virtual Machine version 1.1.1 or later, with Swing 1.1.1. As I mentioned above, PostArmor is *free* for individual users on one machine with one e-mail account. For other users it can be licensed for reasonable fees. It comes with HTML-based documentation, which you view with your Web browser. The version of PostArmor I have (1.3.1, which is the latest at this time) was written in 2002, according to Get Info, so some of the document's illustrations for setting up Mail to use with PostArmor were a bit different than I saw when

Figure 1: PostArmor's opening window

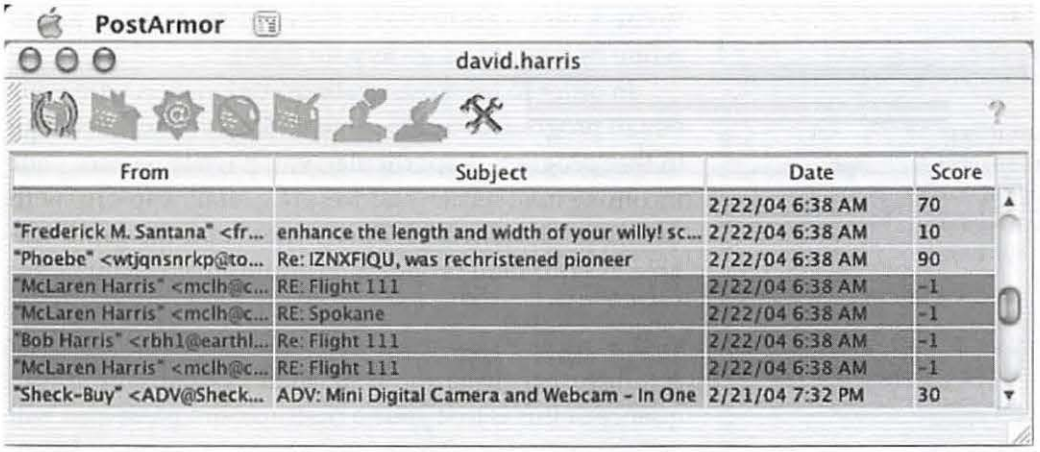


Figure 2: Checking mail with PostArmor

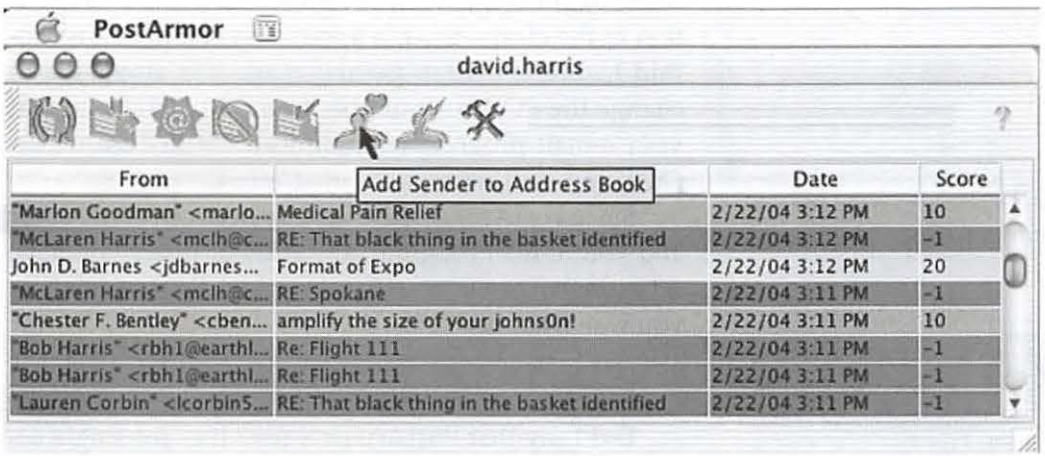


Figure 3: Adding an address to your OK list

editing Mail's Account preferences. I was able to translate the ideas to my later version of Mail.

Figure 1 shows the appearance of PostArmor after it is launched. It must be running in order to filter the mail that your e-mail program gets, and, when that program is set to use PostArmor, to get mail at all. I put PostArmor in my Login Items (in System Preferences), so it launches when I boot my system. It works even if minimized.

PostArmor can also run by itself, just to check mail waiting on your mail server, and to rate its spam potential. If you hover the mouse cursor over any of the mailbox buttons shown in *Figure 1*, text pops up telling you what the button does. The first button on the left in the row of mailboxes allows you to inspect mail still waiting on your server, with its ratings by PostArmor (*Figure 2*). In the figure, green items have been OK 'd and yellow (lighter, in gray) items are rated as spam. Scores that PostArmor has assigned are seen at the right. Clicking on icons above the list of messages performs tasks on selected messages. *Figure 3* shows me adding one sender (on the lightest gray row) to my list of OK senders; it had been previously been assigned as spam with a rating of 20. One icon option is even to send a report to SpamCop.

Figure 4 shows the Settings window, with the Options tab selected. "Senders always accepted" already has several domains entered (apple.com, mac.com, etc.), and you can add either your own domains or full e-mail addresses, modify them, or remove them. Your friends' or relatives' addresses would go here, as well as those of any mailing lists you might subscribe to, if they are not already included by domain. There is even a feature to have PostArmor send e-mail to you alerting you to blocked messages, though even when I enabled it, I have not seen it work.

In the lower part of Options you can block domains or addresses in a similar way.

The Filters tab of Settings (*Figure 5*) shows the rules or filters that PostArmor already has built in. You can add or remove these too. PostArmor has its own system of weighting the probability of a message being spam, with higher numbers being more probably spam. Negative numbers decrease the spam rating. PostArmor checks message headers for the information it uses to judge. The documentation explains in detail the meanings of the elements shown in Figure 5, and how to modify them. However, I think one of the reasons for PostArmor's success is how well the built-in filters work. In my first day of using the application, it

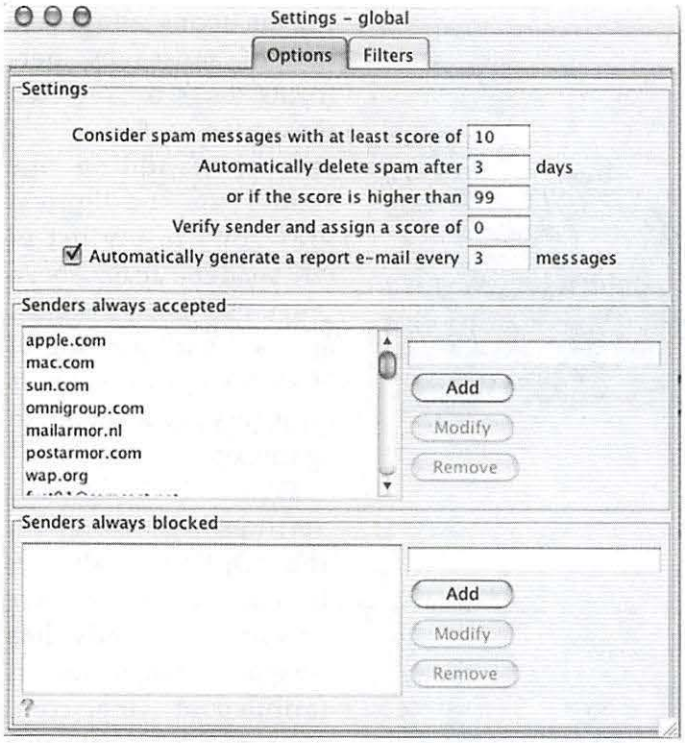


Figure 4: The Settings Options window

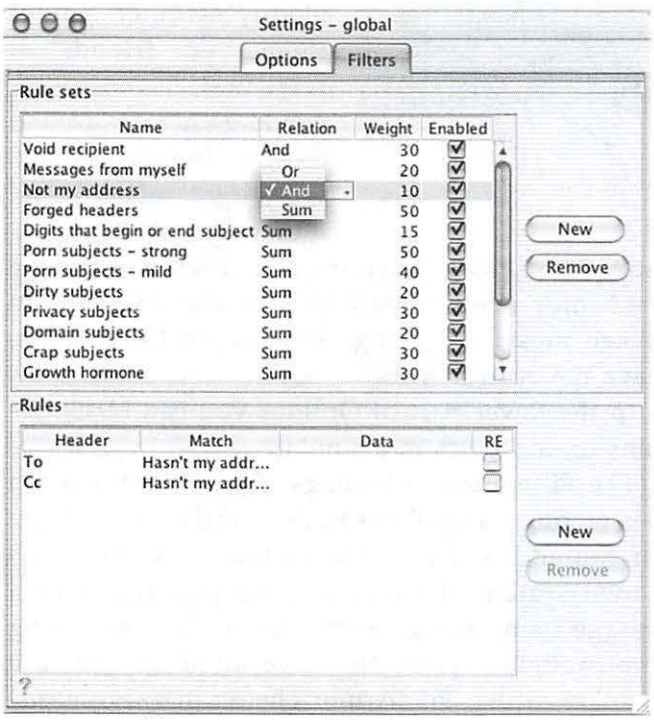


Figure 5: The Settings Filters window

allowed only one spam message to pass through—out of dozens of such messages. And that was only because in that instance I did not use it to check messages before getting mail with Mail. You will want to use PostArmor to check messages in the first several days of use, just to refine its settings more to your liking.

In order to use PostArmor in conjunction with your e-mail program there are some settings you must change in that program. In particular, you have to replace your incoming mail server's address (e.g. mail.wap.org) with the word "localhost" if PostArmor is on the same volume as your mail program. In addition, you cannot use MDS Challenge-Response and SSL for incoming mail, as this version does not support them. These were the settings I had used for WAP mail in Mail. The consequence of this is that your e-mail account password will be less safe from prying Internet eavesdroppers. In my case this is less threatening than might otherwise be, since logging onto the TCS also sends account information in the clear—though apparently not in as easy-to-raid format as when getting mail. You also have to change the POP port number from 110 to 8110, so that your e-mail program communicates with PostArmor. Outgoing mail settings are unaffected.

Since PostArmor operates only between your server and your e-mail program, any rules or filters you have set up in that program will still work to direct mail where you want it to go.

Summary

Did I say that PostArmor is *free*? It is, for single users, on one e-mail account. If you are an individual with more than one e-mail account, you can still use the program for free on one of your accounts. You may have to switch settings in your e-mail program, if you want to get mail from more than one account. If you write down your settings before changing them for PostArmor, it will not be hard for you to change them. Not convenient, but not difficult. Or you could pay the license fee for multiple accounts. And did I say that PostArmor works "out of the box" to block most spam? The most you have to do is add domains and addresses that you wish PostArmor to pass without checking, and monitor your e-mail with PostArmor for a while to customize it to your satisfaction. A bargain, I say ("free").

PostArmor is available from:

<http://www.postarmor.com/> ■

Erasing CD-RWs in Mac OS X 10.3

By Karen Ackoff

I RECENTLY upgraded the Mac workstations to Mac OS X in the university lab where I teach.

I set up two user accounts – an administrator account and a student user account (used by all students). The student user account was set up with limited access, to prevent accidental deletion and unauthorized installation of programs.

Many students prefer to back up to CD-RWs because they can be erased and used over again. However, in Mac OS X, the only way to erase a CD-RW is by using Disk Utility, which cannot be used in a limited access user account. Apple Tech support confirmed this.

For students to erase a CD-RW, I would have to log in as the administrator and run Disk Utility—not a practical solution. So I "googled" the Web for an answer.

I found a great little program called *DiscBlaze*, which sells for $19. With *DiscBlaze*, you can to do the following:

- Burn data CDs and DVDs
- Burn audio CDs
- Burn multiple sessions to the same CD (including audio/data CDs)
- Save and load "burn lists" for data and audio discs
- Erase CD-RWs
- Burn an existing Toast or ISO disc image file
- Create a new ISO and DMG disk image file (Mac OS X 10.3)

"I also found a program called Eraser *by Lars Ostergaard. It is compiled code from the Apple Developer site, and so is free. It does only one thing—it erases CD-RWs. When you open the application, the CD drawer opens and you are prompted to insert a disk. You choose to erase the disk 'completely' or 'quickly', and that's all there is to it."*

A bargain any way you look at it. It should be noted that *DiscBlaze* can burn CDs in Mac, PC, hybrid or ISO 9660 formats. The web help files are easily accessed from the help menu within *DiscBlaze*. The instructions are brief

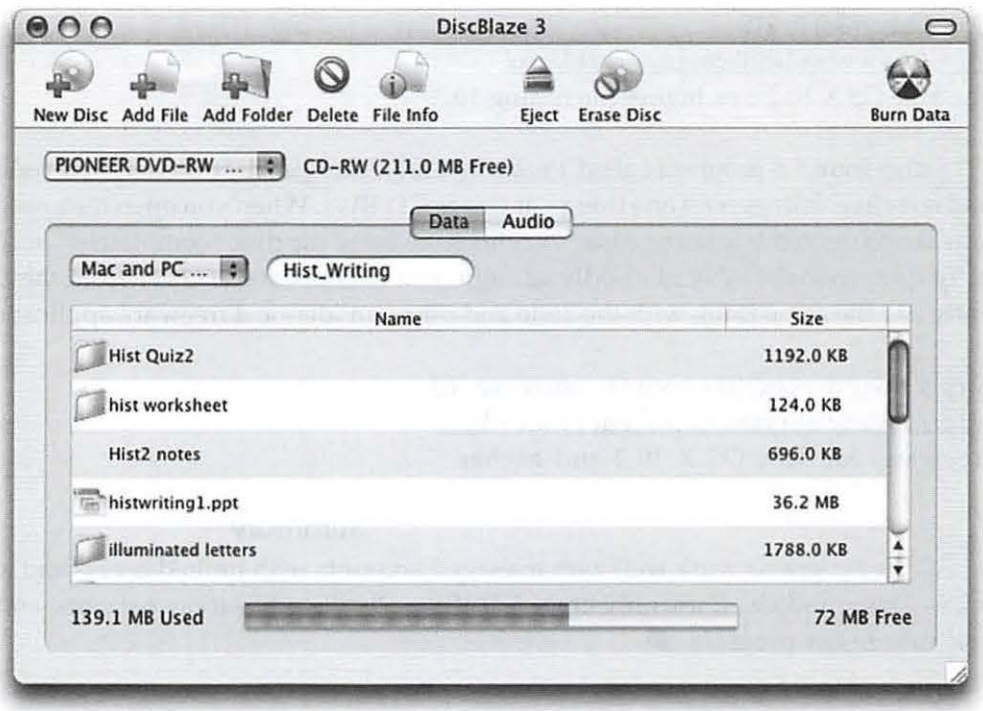


Fig. 1. The inteface for DiscBlaze 3. DiscBlaze offers a set of well-rounded features, such as being able to burn data or audio CDs and DVDs, multiple sessions, erase CD-RWs, and create disk image files. In this instance, it is being used to burn a hybrid (Mac and PC) format CD-RW disc.

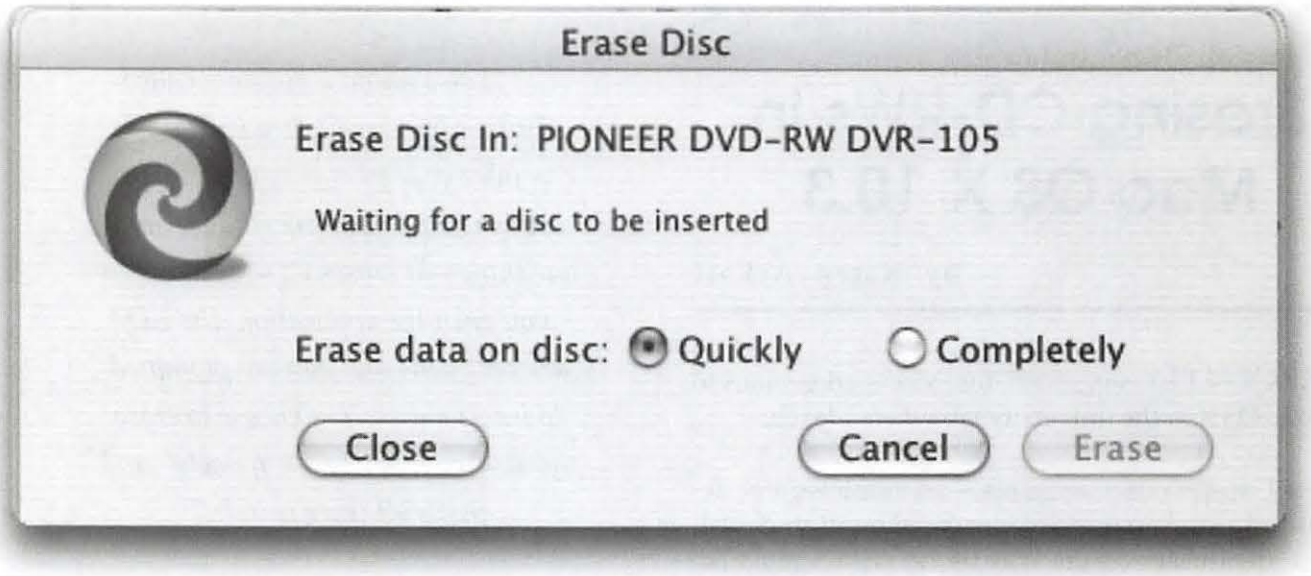


Fig. 2. The interface for Eraser. Simply put in the CD-RW and click "erase", choosing either "completely" or "quickly".

and to the point, and very easy to follow. Burning a CD is as simple as dragging-and-dropping files, and then clicking on BURN. To erase a CD-RW, simply insert the disc and click on ERASE. It couldn't be any easier. This is a great little program and does a lot for a very modest price. *DiscBlaze* also has a great logo.

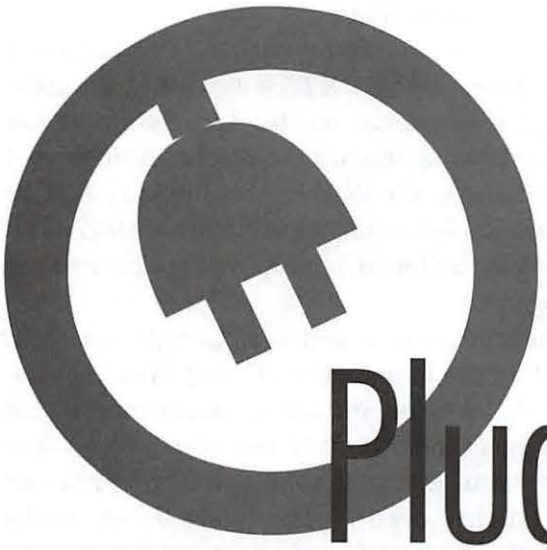
DiscBlaze v3.0.7, $19
http://www.radicalbreeze.com/blaze/
For Mac OS X 10.2.6 or higher (including 10.3)

I also found a program called *Eraser* by Lars Ostergaard. It is compiled code from the Apple Developer site, and so is free. It does only one thing—it erases CD-RWs. When you open the application, the CD drawer opens and you are prompted to insert a disk. You choose to erase the disk "completely" or "quickly", and that's all there is to it. To quit, choose CANCEL (oddly enough, you cannot choose QUIT from the *Eraser* menu). Jeff Skyrsak apparently did the same thing with the code and offers an identical freeware application called *CD-Erase*.

http://www.geocities.com/larsostergaard/
http://www.skrysak.com/mac/index.html
freeware, for Mac OS X 10.2 and higher

Summary

All the programs work well with managed accounts with limited access and require no special setting of privileges. *Eraser* and *CD-Erase* only erase CD-RWs. *DiscBlaze* has more features, and packs a lot into an inexpensive and easy to use program. ■



Plugged in PI

Washington Apple Pi is more than just the *Journal* arriving in your mailbox. It also offers exciting General Meetings and Special Interest Group (SIG) meetings, special events such as the semi-annual Computer Show and Sale, Internet ISP services (dial-up connections, E-mail, private Web space), has active mailing list discussions, offers one of the oldest, most active Internet forums on the planet (the ubiquitous "TCS"), and one of the oldest Web sites. **Plug in to the Pi.**

Pi calendar — **http://calendar.wap.org/**

Pi Web mail — **http://mail.wap.org/**

Pi store — **http://store.wap.org/**

Pi forums — **http://tcs.wap.org/**

Pi Web site
and portal — **http://www.wap.org/**

Converting Audio Cassette Tapes to CDs

By Mark Davis

ABOUT 25 years ago, a friend was between permanent homes and stored his 200-plus LP records at my house. His collection filled in a lot of blanks in mine, and I decided to convert as many stereo LPs as possible into audiocassette tapes. Over the course of six months, I generated about 80 tapes, each of which was filled with 90 minutes of music. Occasional purchases brought the total collection of rock, soul, classical, country, bluegrass, and other recordings to well over 100 cassettes. I thought I was set for life.

This large collection resulted in my initial resistance to CDs, but after I got my first CD player I found that I preferred the higher sound quality and greater convenience of music on CD. After a while, I was largely ignoring the great albums I had taped.

I've been an Apple owner since the days of the Apple IIC, but have never considered myself technologically sophisticated. Not long ago, I moved from a Quadra 610 to a 17-inch, 1GHz iMac with 768 MB of RAM, an 80 GB hard drive, and a SuperDrive that burns both CDs and DVDs. The operating system is Mac OS X 10.2.8. Notwithstanding my fears that I'll cause a "kernel panic" or other disaster I can't handle if do anything at all out of the ordinary, the arrival of iTunes 4.2 and purchase of a 200 GB FireWire drive, as well as some success using iPhoto, persuaded me that I should make better use of the iMac's capabilities.

Preparations

I hoped that the process of digitizing my audiotapes and converting them to CDs would be easy, but knew that would be unlikely. In a perfect world, I could just hook up my cassette player to a CD burner, similar to the process used to transfer LPs to tape. I also hoped that I could find straightforward instructions (*Digitizing for Dummies*?) in print and on the Internet. No such luck!

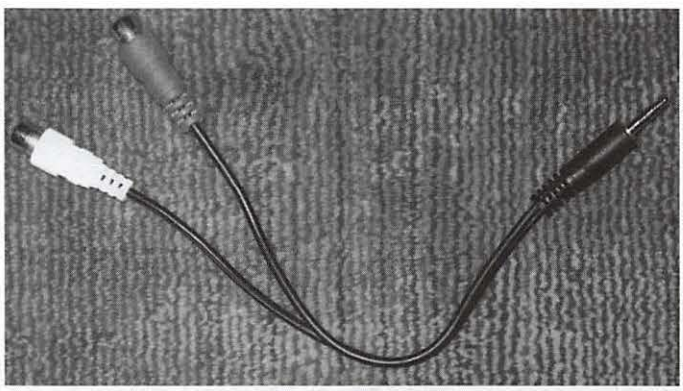
David Pogue's *The Missing Manual X* (2d ed.) and *The Robin Williams Mac OS X Book* weren't much assistance. The iTunes tutorial on the Apple support site largely is a marketing tool for the Apple Music Store. I found some help on the Washington Apple Pi TCS, as well as discussion forums at Apple Support, MacWorld, MacFixit and MacInTouch, but I mostly got only pieces of a larger puzzle.

More helpful were a series of Google searches. While most of the items were PC and Windows related, I could extrapolate across platforms. I also found that including "Mac" in my search (e.g., "audio tape computer transfer Mac") would narrow down the articles, even if some were dated. Links to some of the items I found most helpful are included at the end of this article as Resources.

Taking inventory of all the cassette tapes, CDs and LPs I had and deciding what would be a priority for transfer was the next step. The buddy who was the source of the original LPs that I taped also got a say in setting priorities so I could return the favor of 25 years ago and burn CDs for him. It's tough to say good-bye to old friends, but I knew I wasn't going to listen to everything. I decided that the tapes and most of the LPs (but not the original Beatles albums!) would be sold or given to charity.

What to Connect

Besides a headphone port, my 17" iMac has a line in port that can be used to import music. Had I not had one, I probably would have purchased a USB input device such as Griffin Technology's iMic, one

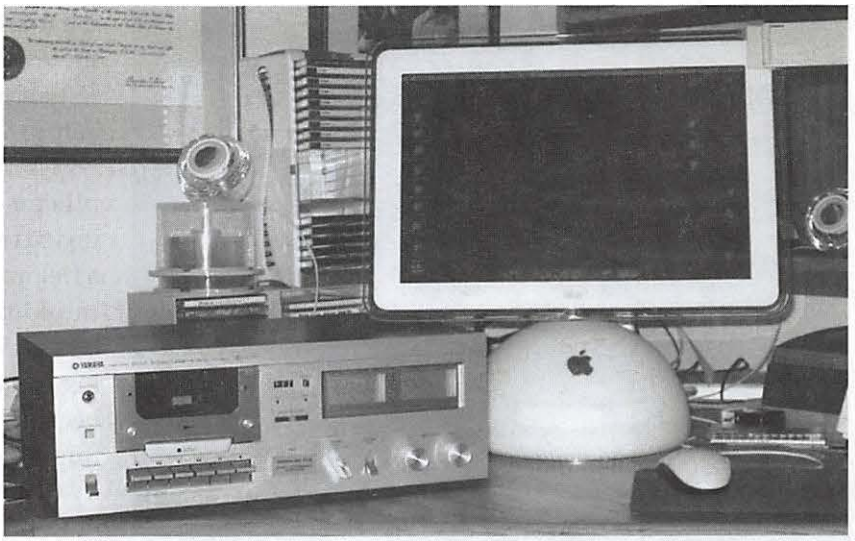


P1. Y-cable used to send left and right stereo signals to the mini-jack. The two plastic rings on the mini-jack indicate it is stereo. (Photo by Mark Davis, taken with an HP Photosmart 812xi digital camera.)

benefit of which is the *Final Vinyl* software that comes with it.

I had learned from my research that I would get the best results from a cassette deck with a line out port or ports that could feed music directly to the iMac. Using the headphone jack from the cassette deck was a possibility, but sound quality and volume are hard to control. Using the leads meant for speakers was out of the question. The voltage needed to drive speakers is sufficiently high to burn out a sound card.

Research is great, but there's nothing like a helpful neighbor. My stereo system's Yamaha TC-520 stereo cassette tape deck could easily be moved up to the computer and has line out ports, but disconnecting and moving other parts of the system, particularly the amplifier, was out of the question. I started looking around for a self-contained cassette player and amplifier. Then the retired patent attorney who lives across the street looked at my cassette deck's power specifications and told me that the line out's level/impedance of 370 mV/50kΩ was sufficient to drive the music directly into the iMac without additional amplification. I was thrilled.



P2. Cables going from the line out connections in back of the cassette deck, through extension cables, to the mini-jack. (Photo by Mark Davis, taken with an HP Photosmart 812xi digital camera.)

How to Connect

The cassette deck has left and right line-out ports that accept what are called "RCA-type" jacks. I purchased the necessary extension cables and a Y-adapter from Radio Shack. The Y-adapter combines the two signals that comprise the stereo into one jack–in this case with a 3.5 mm plug that fit the iMac's line-in port. Make sure the jack is, in fact, stereo; you can tell by the two plastic dividers near the tip instead of one. (Picture P1 shows Y-cable and mini jack.)

I then plugged the extension cables into the left and right line out ports on the back of the cassette deck, connected them to the Y-adapter, and plugged the mini jack into the iMac. I also purchased some headphones to monitor what the digitizing and recording process. Hardware-wise, I was set. (Picture P2 shows the cables coming out of the back of the cassette deck. Picture P3 shows the cassette deck and iMac from the front. Picture P4 shows the back of the iMac, with cable connections.)

Deciding on Recording/Editing Software

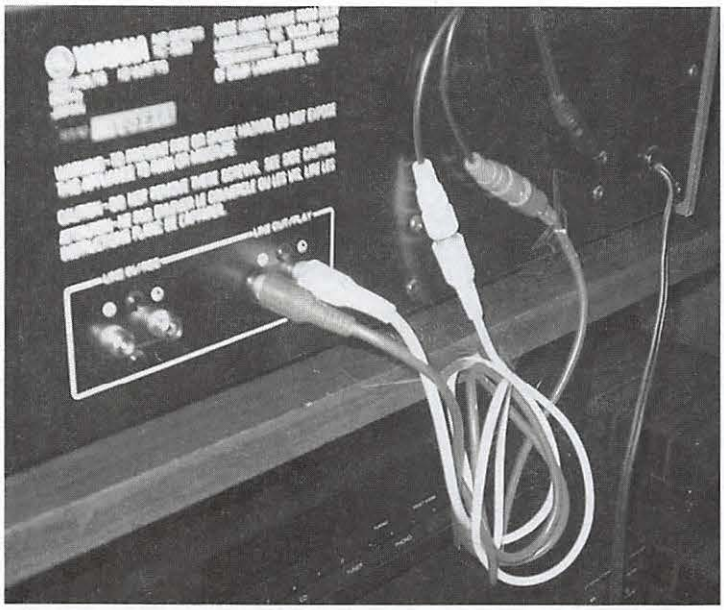
I initially thought that iTunes would provide all the software necessary. I learned from the Apple Computer, Inc. team that demonstrated Garage Band at the January Washington Apple Pi general meeting that iTunes does not include separate software to record and digitize music. They also said that editing software would be useful.

A search for Mac OS X software on VersionTracker, Download.com, Harmony-Central and various discussion boards revealed numerous programs that seemed highly regarded. Among the commercial and shareware of note were *Amadeus II* (HairerSoft), *Sound Studio* (Felt Tip Software), *Sound Sculptor II* (Jeff Smith), *Cacophony* (Richard Bannister), *Peak* (Bias), *Jasmine* (Kumulipo) and *Logic Audio* (emagic).

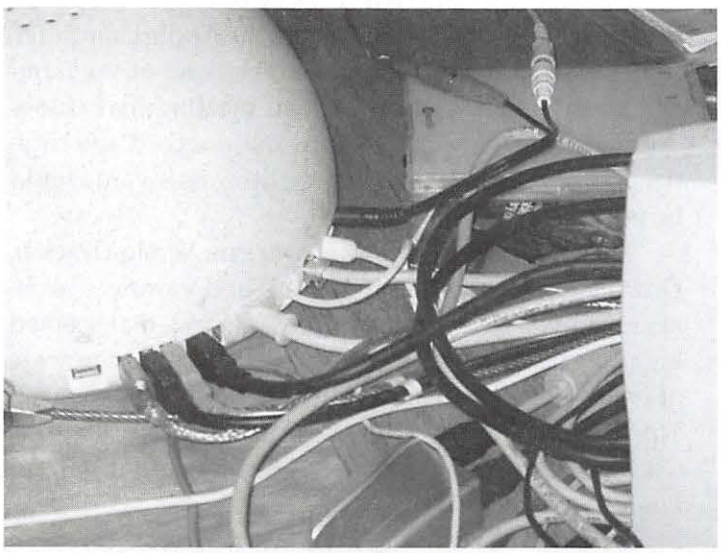
At first I considered *Audio Recorder* 1.4 (Ben Shanfelder), straightforward, recording-only freeware, but decided it would be nice be able to manipulate some of the music, especially to edit out clicks and scratches that had carried over from the LPs. This led me to *Audacity* (SourceForge). Not only is it freeware, but it is open source software for Mac OS X, Linux and Windows. The features are impressive and extensive documentation is available. I installed it.

Setting up Mac OS X for Recording

There are several ways to set up Mac OS X for recording. After opening the Sound Panel in System Pref-



P3. Yamaha TC-520 cassette deck next to the G4 iMac, ready to record. (Photo by Mark Davis, taken with an HP Photosmart 812xi digital camera.)



P4. Back of the iMac, showing cable connections. The mini-jack connects to the line in port (also called "audio in port" in Apple documentation) on the far right. (Photo by Mark Davis, taken with an HP Photosmart 812xi digital camera.)

erences , clicking on the "Input" tab will let you set the volume and designate "line in" as the source for sound.

Another resource is the program included in Mac OS X for controlling the Musical Instrument Digital Interface (MIDI). In the Applications > Utilities folder, open Audio MIDI Setup. Clicking on the "Audio Devices" tab again permits control of the sound volume. Importantly, checking "Play Through" will permit you to listen to what is being recorded by the computer with either the external speakers or headphones. (Screen Shot SS1 shows Sound Preference Panel and Audio Midi Setup)

The most useful resource for controlling the computer is one I wasn't even looking for. When checking out editing programs, I came across *BetterSound*, a free audio Preference Panel (Alain Cretet Software). In addition to being able to designate the volume levels and input device, a VU meter facilitates monitoring the stereo input to assure sound is not being lost because volume is set too low or too high. I also was impressed by the instructions and support provided by the author.

Setting Up *Audacity*

As mentioned, *Audacity* has extensive documentation. I mostly stuck with the program's default preferences, but some settings are particularly important.

Audio I/O: Recording should be set for "2 channels (stereo)" and both the playback and recording devices set at "Built in audio controller."

Quality: Audio CDs sample sound 44,100 times per second ("sample rate" of 44 KHz). The standard sample format (number of digits in the digital representation of each sample) is 16-bit. *Audacity's* defaults are a 44 KHz sample rate, but 32-bit sample format. I used these defaults for recording even though I knew burning would be at the CD standard because 32- bit sampling was better for editing.

File Formats: I set Audacity for the faster "Read directly from the original file" rather than the safer "Make a copy of the file before editing." I set Uncompressed Export Format as "AIFF" (Audio Interchange File Format, used by Apple) .

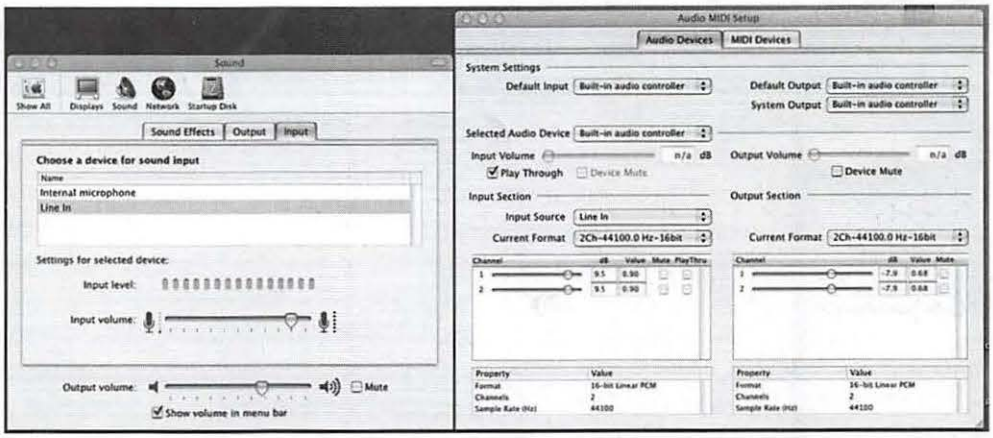
Interface: I turned off "Autoscroll while playing." *Audacity* allows viewing of recording progress in periods of time of fractions of a second to multiple minutes. I found it best to zoom out to a longer time period to view recording progress. I opted to always allow pausing. *Audacity* can show the sound as waves or color spectrograms. I kept "update the spectrogram while playing," enabled the edit and mixer toolbars, and enabled dragging of the left and right selection edges. With slower computer chips or limited RAM, some of these settings might have to be de-selected (especially spec-

trogram-related). Shutting down other programs also helps.

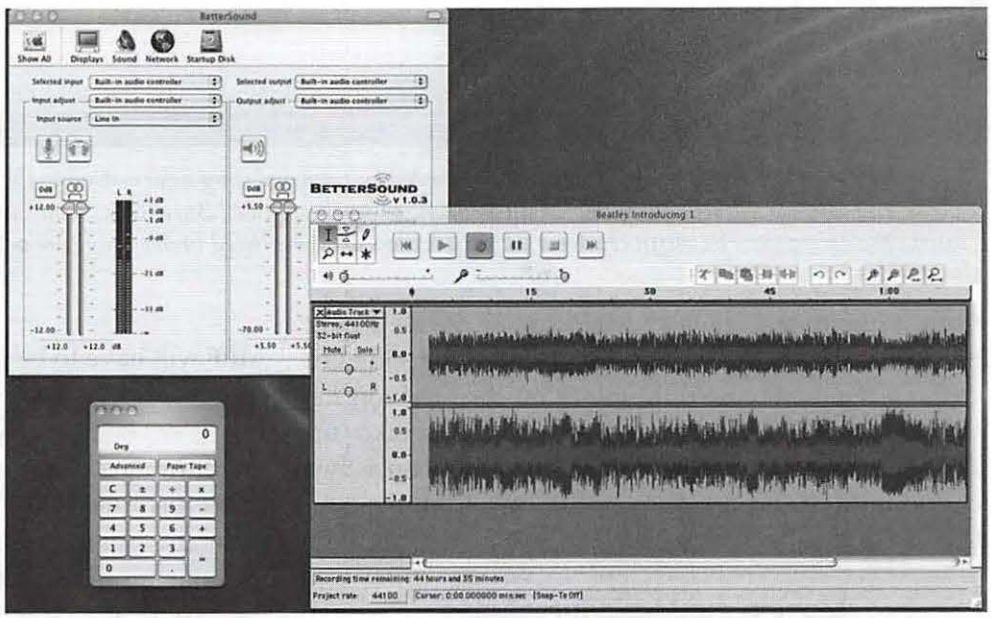
Recording Cassettes

Before recording, it is important to test the sound level. VU meters, including the one in *BetterSound*, show the decibel level with green (okay) and red or orange (in danger of sound being lost). The level should be mostly in the high ranges of green, flickering into the red/orange only occasionally.

Starting *Audacity* opens the recording page. Before recording, select "New project" from the File menu, then give it a name. An initial decision is whether each song on an album will be a separate track, as is the case with most CDs. For cassettes, that means stopping the tape and *Audacity* after each song, saving the results, and beginning a new project for the next song. Since saving each song separately is tedious and I am mainly interested in preserving albums, I decided to make each track consist of an entire side of an album.



SS1. The MAC OS X Sound Preference Panel and Audio MIDI Setup screens.



SS2. The recording set up. The BetterSound panel, upper left, shows the active vumeter. Audacity is in the midst of recording side 1 of Introducing the Beatles. The recording control buttons are at the top. The calculator is kept handing to add up the time of recordings.

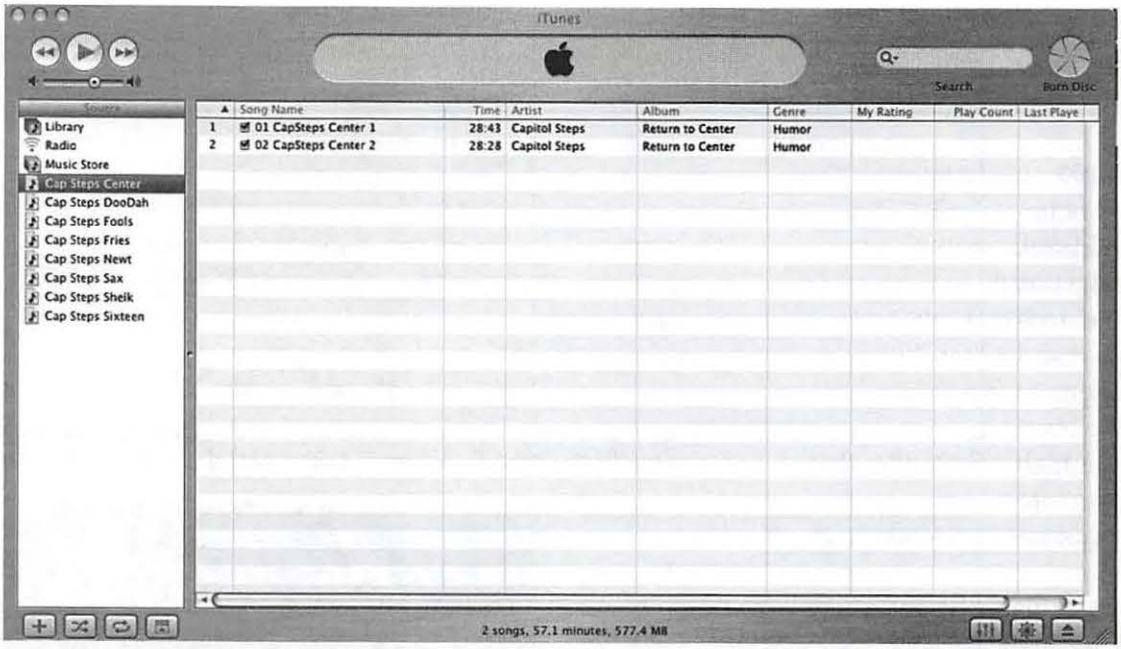
Transferring music from a cassette to computer takes place in real time. A 45-minute side of a tape takes 45 minutes to transfer. For each cassette, determine where the music actually starts (or where you want to start recording). Having a counter on the cassette deck helps the process. Next, click on *Audacity's* Record button, and then start playing the tape. If there is too much empty time at the beginning or end of the *Audacity* recording, it can be easily deleted using the Edit function. At the end of the segment of tape being recorded, stop the cassette, click on *Audacity's* Stop button, and save the project.

CDs hold about 70 minutes of music, as opposed to 90 minutes for many two-sided cassette tapes. A watch and calculator are handy for keeping track of the total time elapsed for recordings. (Screen Shot SS2 shows the *BetterSound* panel, the *Audacity* recording page, and the calculator.)

Exporting the Music

Audacity saves music in a its own compression format that uses the .aup suffix. While newer CD players will play MP3 files, older models are limited primarily to the WAV (used by Microsoft and IBM platforms) and AIFF formats. Since I didn't want to go out and buy new equipment, I decided to use AIFF.

Having set *Audacity* to export in uncompressed AIFF format, I was able to select "Export as AIFF" from the File menu. Each export took 1 to 3 minutes to convert



SS3. The iTunes main page, showing playlists in the left column and song information to the right. After a blank CD is inserted, dragging one or more playlists to the round "Burn Disc"icon" and selecting "Burn Disc" from the File menu creates a CD. (Note that what are listed under songs are actually entire album sides.)

from *Audacity* .aup files to AIFF format. While I may have been able to export directly to iTunes, I decided to create a temporary holding folder on the Desktop for the exported AIFF files. Uncompressed music takes up a lot of drive space. For example, an album consisting of two compressed .aup files totaling 176 KB translated to 577 MB in uncompressed AIFF files.

Moving the Music Into iTunes

As with many Apple programs, iTunes has a good help function. Moving the AIFF files into iTunes proved simple: drag the files to the iTunes icon and drop them. Album sides took up to three minutes to transfer. Each file, or track, appears as a "song" in the right side of the main iTunes window, along with its length in time. By selecting "Get Info" from the File menu, details can be added about each item, including the artist, album, and genre.

The left side of the main window is primarily for "playlists." These are groups of songs to be kept together for playing or burning. After a new playlist is created, songs are added by dragging them to a playlist. When I first opened iTunes, I generally stuck with the default preference settings, though I specified "AIFF Encoder" for the "Import Using" preference, and "Audio CD" as the disc format for burning. (Screen Shot SS3 is shows the main iTunes page.)

Once an album was successfully transferred to iTunes, I deleted the AIFF file from the temporary desktop folder in order to save drive space. However, a large AIFF file remains in the iTunes music folder. To preserve space (and later make use of an iPod), once I have burned the desired CDs, I plan to use iTunes to convert the music to compressed MP3 files for permanent storage. Converting leaves both file types in the iTunes music file, so the AIFF will have to be deleted to restore drive space.

CD Burning

Burning a CD also is relatively easy. Note that only CD-R discs should be used for music, since CD players generally can't play CD-RWs. Inserting a blank CD-R into the appropriate drive (the built in SuperDrive in the case of the iMac) brings up a dialog asking what you want to do. Selecting "Open iTunes" brings up the main window. Selecting "Burn Playlist to Disc" from the File menu turns what had been a "Browse" icon at the top right into a "Burn Disc" icon. Drag a playlist totaling less than the disc's capacity to the icon, then click on the icon (or again select "Burn Playlist" from the File menu), and the icon turns into an orange and black spinning beach ball. In a few minutes, depending on the size of the playlist and speed of your CD burner, the CD shows up on the desktop with the playlist's title.

The final step-and one that I took with great trepidation-was to see if the burned CD really worked in a player other than the iMac. I tested my first effort both in the my stereo system and car CD player. It worked! My reaction was "*mirabile dictu*!" For those not familiar with the Latin expression, this essentially refers to an event that is so miraculous that even speaking of it is wonderful.

Resources

Better Sound
http://bettersound.free.fr/
Audacity
http://audacity.sourceforge.net
Apple audio downloads
http://www.apple.com/downloads/macosx/audio/index1.html
"Turn Your LPs or Cassettes into CDs," *MacWorld*, May 2002 by Jonathan Seff
http://www.macworld.com/2002/05/bc/31analog/.
"Mac Mac OS X audio recording and editing software" by Al Fasoldt
http://aroundcny.com/technofile/texts/mac061803.html.
"Burning CDs from LPs and Tapes by Alan Zisman"
http://zisman.ca/Recording/printer_Mac.html.
"Using iTunes and Amadeus to Create MP3s from Cassette Audio Tapes"
http://www.mrs.umn.edu/ITI/2003/itunesMP3cassettes.html.
"Copy Vinyl or Tape Recordings to CDR"
http://www.gmayor.com/copy_vinyl_to_CDR.htm.
"How to Connect – http://217.149.193.83/HowToConnect.htm "
"Converting Tapes and Audio to CD"
http://www.blazeaudio.com/howto/lp-overview.html

Mark Davis, an attorney for an association of state officials, is a Washington Apple Pi member.

A Short Review of Zinio Reader

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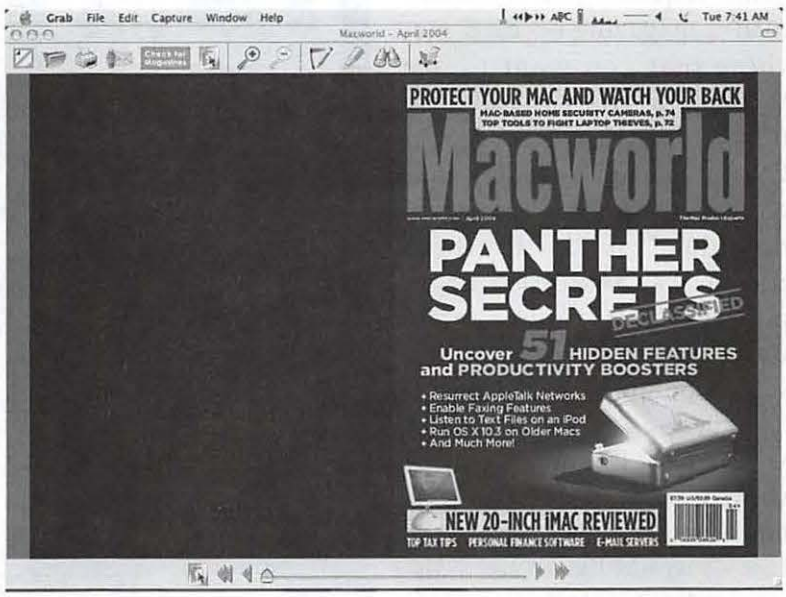
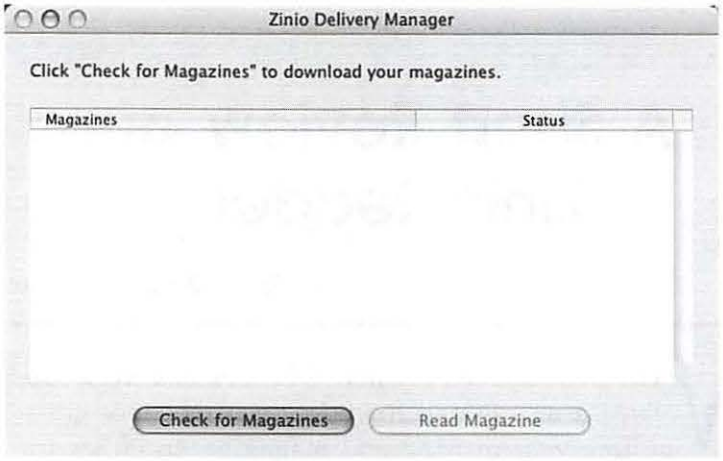
WHEN I registered my new G4 iBook last week I received a nice E-mail from Apple with a nice gift—one free year of *Macworld* magazine, in either traditional or electronic format published by Zinio (www.zinio.com). Since I just renewed my print subscription I decided to try the electronic version, and here is my first impression of it.

Zinio Reader (Panther version, 1.4.3) is a free 6.4 megabyte download that allows you to download and read the electronic magazines. Once you download a magazine and open it in the reader it behaves similarly to a paper magazine. The display shows two facing pages (or just the cover when you first open a new magazine). This results in text that is a little too small for me to read (on a 12" iBook at least) but the default mouse click action is to zoom in on an area of interest. The amount of zoom can be adjusted from zooming in from two pages wide to one page wide, to as large a zoom as from the two-page width to one third of a page in width. Clicking along the side of a page



The cover art for an electronic magazine isn't particularly inspiring. What works in print doesn't necessarily work electronically.



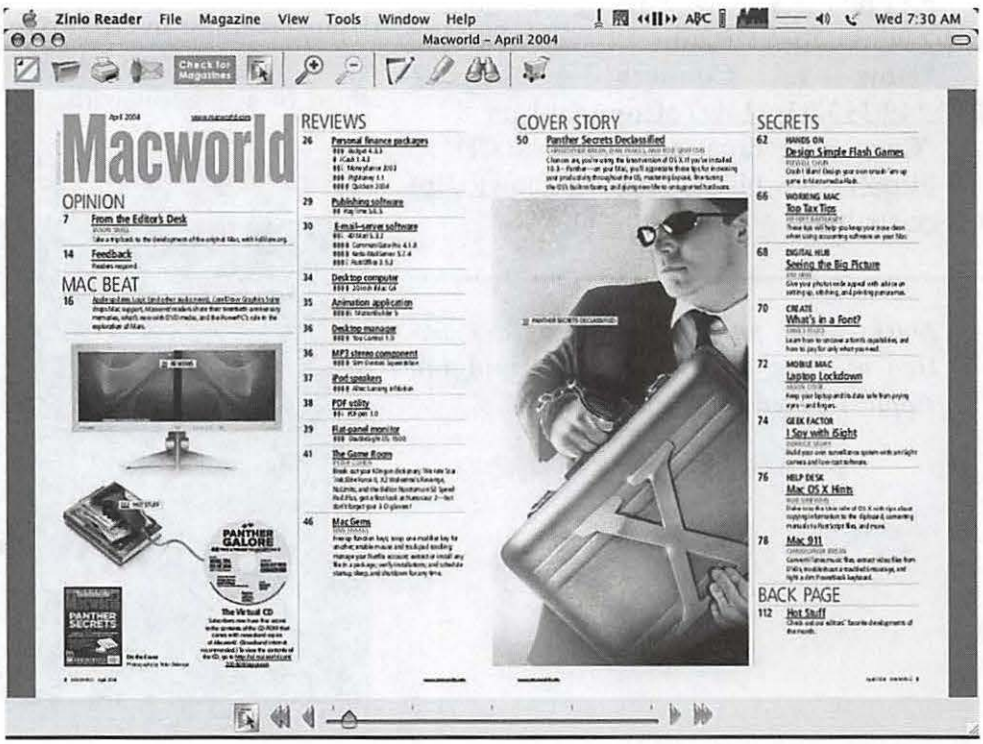
The Zinio Delivery Manager dialog is not particularly inspiring.

causes the page to flip, with or without animation. Like Adobe Acrobat Reader, moving around in a zoomed in page is as simple as clicking and dragging the page. In addition to the smart mouse actions, there are also navigation buttons along the bottom of the reader. The reader also can be navigated by keyboard shortcuts. In all, it is an easy to use program that works well on my 800 MHz iBook with 256M RAM.

One of the things that I don't like about the Zinio system is its approach to Digital Rights Management (DRM). Zinio requires you to download a magazine on each machine that you want to use to read it. You cannot copy it over a LAN or burn it to a CD to read it on other machines (although you can download it up to three times). At 15+MB per magazine that takes quite a while on a dial-up connection. I would be much happier with the iTunes DRM method where one download can be shared across three computers. Another nit to pick is the cost—I would like to see a discounted subscription rate for those of us who already subscribe to the printed magazine. I think $5 or so per year to be able to download an electronic version of what I already am paying for would be great. But both of these are small issues in an overall good package.

Magazine selection is fairly decent, with about 30 or so different titles being offered, including *Macworld* and the new, digital-only, *Mac Developer Journal*. Also, the Zinio Web site has numerous sample issues of these magazines that you can download. The *Mac Developer Journal* bears special mention. It is a new, electronic-only magazine that has embedded video and other "Rich Media" features. You can either purchase a subscription to a magazine or buy single issues.

The bottom line is that I really like the Zinio reader as a complement to the printed magazine. It is convenient to use and has an intuitive interface. The only drawbacks that I see are the DRM, and the cost for subscribing to both versions of a magazine. Now, if they would only start offering archives in the Zinio format I could get rid of the boxes of old magazines that I have stacked in my basement! ■



The Zinio Reader interface has icons at the top for zooming in, printing, searching, flipping pages, etc. At the bottom is a tool for rapidly "flipping" through electronic documents.

Soundtrack (a review)

By Guy Serle

ARE YOU A frustrated musician? Do you think that filters are something you make coffee with? Do you consider feedback what happens when you give your baby strained carrots? Is reverb regarded as something that occurs when you use an action word twice in the same sentence? Boy does Apple have a software package for you. It's called *Soundtrack* and it's the easiest, most powerful music creation software I have ever seen. Now I'm not a musician, nor do I play one on TV. In fact, I was probably the worst trumpet player Northeast High School in Fort Lauderdale has ever seen (but I looked good in the marching band uniform). *Soundtrack* however, makes me feel like an expert. As you read the review, I will be saying this a lot, "More on this later." Simply put, even though the program is easy to use and understand, trying to follow each tangent to its end would mean I would never be able to finish this article. So trust me (heh heh), if I say "More on this later", it will come up again

Formerly available only as part of the *Final Cut Pro* package, Apple has now released it as a stand-alone product. The intent of the program is to create background music (also called a score) for QuickTime movies and as such, it does an outstanding job. No one will ever compare you with John Williams, but the included material (more on this later) is extremely capable. The other thing you can do is create your own full-length songs. You can throw bagpipes, violins, and trumpets with a smattering of cool jazz guitar licks together if you wish (but for sake of western civilization, please don't) in any combination. One word of caution, this program can be as addictive as any game I've ever played. The first time I saw it was at the Tyson's Corner Apple Store and as I fired it up and learned the basics of how it worked, hours passed before I realized it. Expect to spend many sleepless nights fine-tuning and tweaking your songs.

There are two main windows where most of your work will take place. They are called the "Media Manager" and the "Project Workspace." Each of these windows has different areas in which to review, edit, or place your music loops or video. As far as file management goes for individual projects, what you do in one window directly affects what happens in the other. It might sound complicated and can be a little unnerving at first glance, but Apple has made it very intuitive and easy to navigate.

The first area I'm going to talk about is called the "Media Manager." It's within the Media Manager that you locate, select (audio and video), and preview any files (audio) that you wish to bring into your project. You can access files in three different ways and there are tabs (or panes) to allow you to quickly switch from one-way to another. The first tab is called "File Browser." From this configuration, you can look through your hard drive or network for the files you wish to use or import by clicking the "Computer" button on the right side. This will display the contents of any mounted media you currently have connected to your computer. Importing files from the hard drive really depends on what type of file it is. If it is an audio file (WAV, AIFF, and QuickTime; *Soundtrack* can also use loops designed for use by a similar PC product called ACID), a single click will play the file. If this file is one you wish to include in your project, you just drag and drop it into your "Project Workspace" (part of which has quick shortcuts to all the audio files used in your project). Video files selected must be dragged from the Media Manager to what's called the "Video Pane" in the Project Workspace area. As you move through files and folders, it can be easy to lose your place. Part of the File Browser set of command buttons are two buttons with arrows, labeled "Forward" and "Back." Like a web browser, these keys take you either forward or back (duh) through the currently selected mounted drive or folder. The "Home" button displays the contents of the Home directory. The Home directory should be the location of the sound loops installed by the program. Just below the File List window in the Media Manager is a button labeled "Add Favorite." If you have a particular loop, sound effect or folder containing many sounds that you use on a regular basis that is not installed in your Home Directory, find it through the File Browser and hit the Add Favorite button. This will put a shortcut/alias under the Favorite Tab and give you a quick way to reuse the file

or folder without having to search for it.

The next tab is the "Favorites" tab. Clicking on this tab gives you shortcuts to all files and folders you have designated for quick access. It also has the Forward and Back keys to help you through the folders you have selected. The difference is that the Forward and Back keys stop at the highest hierarchy of the selected favorite folder and doesn't go all the way back to the mounted drive the folder is residing on.

If all you use are the loops and sound effects installed with the program, chances are all you'll really need is the last tab labeled "Search." The Search function while powerful is also the least defined part of the Media Manager. Sometimes there can be too many choices. This is not to say that *Soundtrack* doesn't at least *try* to make it easy for you, but when you are looking for a particular drum loop for example, you could have hundreds of different ones to choice from. With only fifty displayed at a time, finding just the right one can be difficult. Some of your first choices are whether you wish the keyword list to show in columns or buttons. Both are highly different and it's really your own preference over how best to work. "Columns" view gives you the instruments in the left-hand window and matching results in the right. Results can vary depending on the instrument chosen. Your choices can be as straightforward as Acoustic or as obscure as Cinematic. You can narrow your choices down using the "Time Signature" (3/4, 4/4, 7/8, etc), "Scale" (Key of A or C# etc), or the "Refine Search" window. Clicking on one of the results will display all the files or loops associated with that keyword in the "Search Results" window. Click on the individual loops to listen for what you want. Again, just like the File Browser and Favorites tab, when you find the loop you want, drag it over to the Project Workspace to use it. "Buttons" view gives you all the available instruments spread out with clickable buttons. You can again limit the number of choices with the Time Signature, Scale, and the Refine Search window. All matches are shown below in the Search Results window. Another way to narrow down the choices you make is to limit the selections to certain parameters within the search results window itself. For example if you are looking for Guitar loops in the key of "A", find the first choice in that key and select the "Key" column. All the choices available in that key will be shown first. You can choose between File Name, Tempo, Key, or Beats.

"Boy does Apple have a software package for you. It's called Soundtrack *and it's the easiest, most powerful music creation software I have ever seen. Now I'm not a musician, nor do I play one on TV. In fact, I was probably the worst trumpet player ..."*

If you purchase or download addition loops or sounds, the files can be added to *Soundtrack* and made searchable. Relocate the files from whatever media (CD, DVD, etc) the files originated on and put them into an easily found directory on your hard drive. The directory with *Soundtrack*'s built-in files would be a good place. Also, it's a good idea to further break them down into categories like Guitars, Drums, Violins, or whatever. Then under the Search tab, hit the "Setup" button. A new window will appear with yet more options. Hit the plus sign to add a directory or the minus sign to remove one. Now navigate to the directory you wish to add or remove. Once the directory is highlighted, hit the "Index Now" button on the bottom to add it or the minus sign on the top to remove it. That's it. The files are now available within *Soundtrack* for all search parameters. As simple as pi drawn out to 37 numbers. Actually it's easier than it sounds. Most people will pick up the basics within minutes of playing with the program. One word of caution and this is important. Take notes, there will be a test later. **If you use certain loops for one of your projects and then later move those loops or files to a different location on your hard drive or network, *Soundtrack* will not know where to find them.** You will be forced to find every single file you used for your project. In other words, don't mess around with the location of your files.

The last part of the Media Manager for me to bring up is the "Preview" area. This is on the bottom of the Media Manager and can be quite handy if you're a

real musician. The information displayed for each loop includes the waveform it generates, native tempo, native key, beats, time signature, sample rate, bit depth, and lots of other things I don't fully understand. You can use it for previewing loops and sounds before committing them to a project, although single clicking any file in the Media Manager will do the same thing.

Finding and reviewing files is one thing. Doing something creative with them is another. Which brings us to the meat (or soy if you're a vegan) of the program, the "Project Workspace." If you have used Final Cut (Pro or Express) before, you will grasp the workings of Project Workspace without too much trouble. If you haven't used Final Cut before...you will grasp the workings of the Project Workspace without too much trouble. It really is very easy to use.

The Project Workspace is where you drag and drop all the media files (audio and video) from the Media Manager. Like the Media Manager, there are several areas to discuss and each has a set of controls to edit your project files. These areas are called Viewer (to drop your video files), Transport Controls (to start, stop, pause, etc), Master Controls (Set the parameters of your project here), Beat and Time Displays, Global Timeline View, Audio Meters, Track Headers (this provides information on each loop or file dropped on the timeline), Timeline Controls, and the Timeline itself. Holy Information Overload Batman! That's a lot to keep track of! Well, not really. Once the parameters of your project are set, you'll rarely need to deal with a lot of them, but let's go over it a bit.

The Viewer has three tabs (or panes) that display additional information about your project. These tabs are named "Video", "Audio", and "Meters." Clicking on the Video tab you see the video you have drag and dropped from the Media Manager. Once video is dropped, a track is created with video stills shown along the timeline. This will always be the topmost track in any project. Moving the playhead along the Timeline also moves the video along in the Viewer. This is handy as it allows you to emphasize the music you wish to accompany the video in the proper location. With the right audio loop, you can build up suspense or highlight a comedic moment.

Remember what you had to go through to select just the right audio loop in the Media Manager? If you need that particular loop again, you have lots of ways to go about it. Most of them are a pain in the neck. You could look back through the Media Manager again and do a search (the really hard way). You could Control-click the loop in it's audio track and then duplicate it (the easier way), *or* you could select the "Audio" tab in the viewer and see a nice list of all currently used project audio loops in alphabetical order (the *really* easy way). Drag and drop to the timeline or a new track and you're all set. This is especially helpful if you want to use any audio effects as the effect doesn't just apply to the selected loop but the entire track. If you don't want the effect to run across every loop in a particular track, just move the loop to a new track.

The last tab is called "Meters" and it has stereo indicators showing the audio level of your project. If your levels within the project get too high, distortion and other bad things (sorry to get so technical) can happen. Within the Meters tab are controls to reset the clipping values. If the audio level rises above a certain value, the little circle on top of each channel will change from red to green. The "Go" button will automatically take you to that point in the timeline for you to reduce or increase the audio level. The "Reset" button in turn will reset the parameters of all clipping that occurs within your project. If I were a real musician I would probably understand this, but I'm not, so I don't. Adjust the volume and levels of your project so that it sounds good to you. If anyone else likes it, that's a bonus.

At the top of the Project workspace are various controls that set an overall theme for how the music will sound and how you edit it in the tracks you create. For the musically challenged (like me), I will give you an overview of what I think the controls will do and how it looks onscreen. Upper left is the "Beat Display." As your project plays, this is in constant motion. Try to follow me here and I'll try not to sound too ignorant. Each second of music is broken into beats. If your project is set to 120 bpm (beats per minute, this is the default), this means there are two beats per second. As you select your loops, one of the parameters is the number of beats each loop possesses. Each 2 beats are equal to 1 second of time that the loop will play. 8 beats is 4 seconds, 16 beats are 8 seconds and so on. This changes if you set your project to something other than 120 bpm. If your song is incredibly long, you could go to a certain point in the timeline by entering the beat number that you wish to jump to. Notice I said, "You can." There are more

efficient ways to move along your timeline and I'll get to them later. The number in the Beat Display will correspond to the number in your Beat ruler just above the tracks you have dragged to the timeline. Just next to the Beat Display is the "Time Display." This shows how long your song is and at what point you are as the timeline moves along. Like the Beat ruler, there is a Time ruler just above your video track. You can jump to a certain point in your project by entering the time you want to go to. Not that I would...but you can.

Just underneath the Time and Beat Displays are the controls for starting and stopping your project from playing. Going from right to left, they are as follows: Play from Beginning, Play, Stop, Go to Beginning, Go to End, Loop, and Record. With the exception of Loop and Record, the controls should be pretty much self-explanatory. If not self-explanatory, please consider not buying this program. Just kidding (mostly). If you can operate a DVD player, this should be no sweat. In order to play and replay a region of your project, select the region and hit the loop button. Otherwise, once the project has reached the end, it will start at the beginning again. I haven't used the record feature, which will probably be of more interest to real musicians.

Just to the right of these controls are what Apple calls the "Master Controls." This is where you set the basic parameters of what your music will sound like. There are 4 factors to consider and they are, "Time Signature", "Project Key", "Tempo", and "Master Volume." Adjusting any of these controls will change the way every loop in your project sounds so be careful! A little (and some not so little) explanation is needed for each.

Starting with the Time Signature. This is adjusted with a pop-up menu, giving you all the choices available. This setting in layman's terms determines how much your loops will be broken up in each measure. Keep it a 4/4 signature (the default) and each measure will have 4 segments. Select 7/8 signature and each measure will have 8 segments. More segments means more ways to mix your loops. It also increases your chances to make mistakes, so use judiciously.

Next up is the Project Key control. This also is adjusted with a pop-up menu, giving you all the choices available. It defaults to the key of "A." You can go up and down the chromatic scale from no key to G# (# is the "Sharp" symbol). I haven't permanently changed it on any of my projects so far. One fun thing to try is after you have completed a project (saving religiously, as I know you do), change the key and listen to it again. What a hoot!

"One word of caution, this program can be as addictive as any game I've ever played. The first time I saw it was at the Tyson's Corner Apple Store and as I fired it up and learned the basics of how it worked, hours passed before I realized it. Expect to spend many sleepless nights fine-tuning and tweaking your songs."

Just to the right is the Tempo control. This has a slide bar going from 60 bpm (beats per minute in case you fell asleep) to 200 bpm. This will make a large difference in how your project sounds. At 60 bpm, your musicians sound like they could use a good nap, while at 200 bpm, they sound like they have been dabbling with prescription medication.

Last up is the Master Volume control. This is also controlled via slide bar. This makes all your tracks either louder or softer. It does not affect the volume settings that you have set for individual tracks (More on this later).

Working with "Timeline" (this is where you drop your loops), is very much like working with video and audio tracks in iMovie. Except unlike iMovie, everything happens in real time. If your project is playing and you move a loop along the timeline, wherever you drop it, it will play. You can even move loops while they are playing which adds a kind of surrealistic sound to the loop. It also crashed the program a few times when I did it (for strictly scientific purposes).

Once a loop is dropped onto the Timeline of a new project, it will create a "Track." *Soundtrack* will support up to 127 individual tracks, more than enough for almost any project. Each Track is inherently

editable as far as volume and panning (left and right sound channels) with slide bars to the left of the Track. This area will also tell you the name of the loop (at least as far as the first loop used on the track). A graphic representing the instrument used for that loop will be present as well (this is changeable although I'm not sure why you would). On the right side of the edit box for the Track are four small boxes that allow you to manipulate the loop (or loops) for this Track. The first one (far left) looks like a speaker facing sideways. This will mute the Track when you play your project. Next to that is an icon that looks like headphones. This will mute all tracks except for the one selected. Multiple tracks can be muted or isolated for playing. It's up to you which ones you want. The next two icons work hand in hand for those people who can't make up their minds (like me). All the way to the right is the "Add Effects" icon. It looks like an asterisk. Hitting this opens up a separate window where you can choose different effects to manipulate the sound of the loops in really cool ways. As much as I would love to talk ad nauseam about this, I haven't figured out all the effects and what they do yet. Mostly in their default settings, they seem to make the loops sound like garbage. Real musicians could probably do all kinds of neato, gee whiz-bang Pink Floyd/ Led Zeppelin effects, but I can't. If and when you use effects on your tracks, the icon will turn purple. If you decide it sounded better without it, or you just want to quickly listen without the effect present, the icon next to the Add Effect icon (looking like a circle with an arrow on top. Why? I don't have a clue) plays the track without the effect.

Loops dropped onto the Timeline will automatically create a new track. The name of the loop and its icon will appear to the left of the track and all editable features will be available. Now, just because you drooped a loop with guitar sounds doesn't mean that you can't drop different loops into same track. You can, but bear in mind the title of that loop is not going to change unless you change it manually. Even if you eliminate the original loop, the name will stay the same. Another thing to note, be careful where you drop loops on existing tracks. If dropped onto an existing loop (or moved along the track over an existing loop), it will take the place of the loop it was dropped onto. Any editing you have done to this particular loop will be gone. Unless you have 70 or more tracks already going in a project, I recommend that you give each different loop its own track. One thing that Apple does to help you keep track of where individual loops are is to put the name of the loop across the top of the loop in the timeline (as long as the loop is long enough to display it).

I left one thing out while discussing the track name previously. Each parameter that is editable in each individual track from the left of the track is also editable from with the track! Click the arrow icon just next to the bypass effects icon and a drop down representation of each parameter appears just below the track. This is way cool as it allows you to do more than set the master parameters for the track (volume, left and right pan, etc), it allows you to change those same parameters at any point of the track! Want to make the volume fade in or out? Want the sound to go from left channel to right and back again? Not a problem. Double click at any point in the timeline to add an envelope point (Apple's description, not mine). Move it up and down, left and right or wherever. It does it real time like the rest of the program. No waiting or rendering. More way coolness: not only does this happen with the standard controls for each track, but if you add those pesky effects I spoke of earlier, the parameters for those are also added. Complete control over not only each track, but also each individual loop! Wow!

Now having said all this I want to repeat something I said earlier: *save early and save often!* One problem I have noticed with this program is the more you do, the greater possibility of a crash. Of course it won't affect Mac OS X, but any changes you made since your last save will be *gone forever!*

One thing you will find if your project becomes big enough is that you will not have room on your display to show the entire project. Either the length is such that it drags too far to the right or you have so many tracks activated that it is lost below the monitor. You can quickly zoom from end of your project or tracks to another by dragging or clicking along the scroll bars (the scroll wheel on most third party mice and trackballs work as well) of the window. All the standard rules apply for windows within the project. Not a huge surprise since this comes from Apple. Another way to navigate is to use the "Track Height" control settings at the bottom of the screen. There are four rectangles to choose from. As far as the length of your project goes, you can adjust that as well with the "Zoom" controls. Condense the size of your

project to view it within a single window. If your project is of considerable size however, it makes editing very difficult. One really great way to navigate around your project is to use the "Global Timeline" view. This is located in the upper right side of the Project workspace. It represents in miniature your entire project. Drag the colored rectangle and your view in the workspace goes with it.

Now where were we? OK, you've made a project, it sounds good to you, and you want to put it in some other format to either listen to or use in some other project. This couldn't be easier. Go to your "File" menu and select "Export Mix." Answer some questions and name it. Poof! Done. *Soundtrack* automatically saves it as an AIFF file, which in turn can be exported or dragged into iMovie, Final Cut Pro, or iTunes. Your project can also be exported as a QuickTime file. If you go this route, be aware that you can save a lot of room on your hard drive by exporting as a "Reference" file. While much smaller, it doesn't contain all the information on your project, just links back to it. If you move the files associated with the project, your Reference file will no longer work. Making it self-contained will eliminate this problem.

Now for the dreaded hardware and software requirements for this program. All this wonderfulness comes at a steep price. You will need at least a 500 MHz Power Mac G4 and Mac OS X 10.2 to even load this behemoth. I hate to keep beating on this horse, but no one still living in the Mac OS 9 days has a chance in Hades in using this program. I attempted to install it on my 500 MHz PowerBook G3 Pismo and hit a brick wall before I got too far. The installer quite rudely quit on me because I didn't meet their requirements. Might as well throw in a DVD drive as well. The program itself comes on two disks. The first is a CD containing the program. The second disk is a DVD containing all the loops (over 4000!) used by the program. In theory I suppose you could install it without the loops, but what would be the point?

After reading this it will probably come as no surprise that I love this program. I give *Soundtrack* a solid four out of five stars. High marks for usability, number of included loops, and sheer fun factor. I take one star away for the occasional instability problem, the high price, and the high system requirements. $299.00 is a lot to ask as a standalone program that is only used for creating scores and the occasional little ditty.

"Now for the dreaded hardware and software requirements for this program. All this wonderfulness comes at a steep price. You will need at least a 500 MHz Power Mac G4 and Mac OS X 10.2 to even load this behemoth."

Take off a hundred bucks and have some extra loop packages available for an additional price and this would be a red-hot five star winner.

News Flash! Since writing this review, MacWorld 2004 has come and gone and *Soundtrack* has indeed come down 100 bucks to $199 (I must be psychic). Furthermore, the new iLife package comes with a song creation and editing program called GarageBand. This is also a loop based music creation program that I'm having a lot of fun with. I will write a review in time for the next *Journal.* ■

The author considers himself a music novice, but loves the tools that lead him to believe he could be the "Next Big Thing!" He composes on a Power Mac G4/933 tower and a PowerBook G3/500 laptop. Autographs are for sale at a nominal price.

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Where the heck is the Pi

Listing?

The Hotline listing, with the names and phone numbers of members who can provide help on a variety of computer issues, can be found on the TCS,

http://tcs.wap.org/

If you are having problems with your Pi account name or password, visit:

http://tcs.wap.org/password

for assistance.

BTCS:

An Evening with Richard Stallman

By Richard A. "Dick" Rucker

THIS MESSAGE thread appeared on the TCS here:

Computing Conference > Mac Union > Richard Stallman last night

(If the notation above seems cryptic, you should re-read my article on using the TCS in the March/April 2004 journal.)

FROM: Richard Rucker
TO: All
Tuesday, Mar 16, 2004

Thanks to Phil Shapiro, who posted a notice on the VMUG mail server, I spent an interesting evening last night at Yorktown High School in Arlington (with Phil and his young friend, Luke), listening to Richard Stallman, founder of the Free Software Foundation.

Stallman appeared somewhat tired and disheveled, having just arrived in this country from Vietnam where he had been spreading his gospel. He had also spent part of Monday with some defense-related group who was interested in learning more about his ideas.

When he arrived on-stage, his first move was to sit down, kick off his shoes, close his eyes, and yawn, all while he was being introduced. However, when he stood up in his stocking feet behind the microphone, he was off and running in a guru-like, soft-spoken but intense manner.

I had never seen or heard him speak before, but knew something about him from what others have written. I enjoyed his description of his early experiences at the AI Lab at MIT where "We didn't have any software that we weren't supposed to share." He defined "hacking" as it was appreciated by all his friends then as developing and improving software with "the spirit of playful cleverness."

As he told it last night, what really ticked him off and set him on the course that he still relentlessly pursues today, was a laser printer that Xerox gave the AI Lab. The printer was improvement over the impact printer they previously had, except that it still had frequent paper jams and or other problems, like the first printer.

Those problems were compounded by the fact that the printer was upstairs, and at least some of the offices, including his, were downstairs. Consequently, when the printer failed for some reason, someone had to discover it and fix it. Or, when the printer had printed your job, you had to decide when to climb upstairs to see if it had happened yet.

With the old printer, RS eased having to deal with both shortcomings by patching the printer's software to post a message on your computer's monitor saying "Your file has been printed" or "The printer has a problem." Unfortunately, the printer software that Xerox provided was a black box that they were not allowed to patch and no source code came with it.

Finally, Richard learned of a fellow who had the source code, and he went to get a copy for himself. Unfortunately, the fellow had signed a "Non-Disclosure-Agreement" with Xerox and refused Richard's request.

According to Richard, he was so steamed with the guy, he walked out of the guy's office without saying a word. After thinking about what to do about such NDAs, where companies were effectively making prisoners out of their customers and taking the

freeing powers of software improvement away from them, he finally resolved to do something about it. As he put it, "This taught me that NDAs are evil because they have numerous victims, victims you don't even know or care about when you agree to sign."

I could go on, but Stallman tells his story much better here:

http://www.gnu.org/gnu/thegnuproject.html

The title of his homepage at http://www.gnu.org/ shows where the recursive acronym for the operating system he has been promoting since 1985 came from: "GNU's Not Unix (GNU)." pronounced "guh-noo."

RS draws a big distinction between his idea of "Free Software" development and that of others, including Apple, who have chosen to develop "Open Source software," though curiously, the name of Apple never crossed his lips last night. A lot of others did though; he focused his strongest condemnations on Microsoft.

To be "Free," software must satisfy these four principles of Freedom, according to Stallman:

• The freedom to run the program for any purpose (freedom 0).

• The freedom to study how the program works and adapt it to your needs (freedom 1). Access to the source code is a precondition for this.

• The freedom to redistribute copies so you can help your neighbor (freedom 2).

• The freedom to improve the program, and release your improvements to the public so that the whole community benefits (freedom 3). Access to the source code is a precondition for this.

He noted that while most commercial and other Open Source software satisfy freedom 0, they don't satisfy the other freedoms.

He seemed most upset by the fact that most people refer to "the Linux OS" and think Linus Torvalds did it all, when in fact Linus wrote a kernel that matched Unix interfaces. He did not create all the other software components needed to make a more complete operating system. For that, others have relied on OS components produced for the GNU project. For more details per RS, see

http://www.gnu.org/gnu/linux-and-gnu.html

I've not met many "holy men," but RS sure plays the part of one quite convincingly, along with a twinkle in his eye and a smile on his lips. It's fun watching someone enjoy what he's doing so thoroughly and express his ideas so fervently.

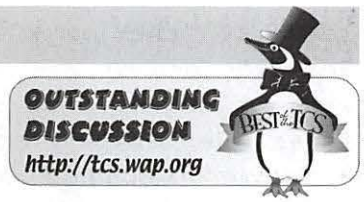
FROM: Jon Thomason Mac Union
TO: Richard Rucker/all
Tuesday, Mar 16, 2004

Outstanding write-up! Thank you. Sounds like quite an evening. If you're interested in more, the other guy to read is Eric S. Raymond.

<http://www.catb.org/~esr/writings/cathedral-bazaar/cathedral-bazaar/>

The two gentlemen have different but complementary perspectives on Open Source software and Free Software (that's "free-as-in-speech, not free-as-in-beer"). And both are must-reads for any lively open source licensing debate. ■

BTCS:



Web site Creation & Maintenance the Cheap & Easy Way

By Richard A. "Dick" Rucker

THE FOLLOWING message thread can be completely recalled on the TCS if you follow this path of clicks after logging onto http://tcs.wap.org:

Computing Conference > Internet Software > web design software

So I'm just going to quote a bit of it as a lead-in to this article:

FROM: John Rhead
TO: All
Wednesday, Feb 18, 2004

Can anyone suggest some software for setting up a basic website?

FROM: Blake Lange
TO: John Rhead/all
Wednesday, Feb 18, 2004

Two professional web design apps for the Mac are Macromedia Dreamweaver and Adobe GoLive. If you are willing to learn simple HTML coding and can do without the graphical user interface then BBEdit is an excellent choice...

FROM: Lila Bednar
TO: John Rhead/all
Wednesday, Feb 18, 2004

There are lots of alternatives if you don't want to run Virtual PC or spend the money for something like GoLive (I love it, personally) or Dreamweaver...

FROM: Richard Rucker
TO: John Rhead/all
AM Thursday, Feb 19, 2004
The way I got started was to use the site templates provided by Apple's .mac service. Then I bought PageSpinner and taught myself enough about HTML and Cascading Style Sheets (CSS) to get by.

PageSpinner allows me to create my own pages, while .mac allows me to use its photo album templates and other server support to do a pretty creditable job for very little effort.

For what this website looks like today, see
om/rrucker/chapter91.html"http://
homepage.mac.com/rrucker/chapter91.html

Oh yes, I have used one book as a reference:
Elizabeth Castro, "HTML for the WWW,"
Peachpit Press

PageSpinner is inexpensive ($30) and superbly designed for the beginner who wants to learn how to use HTML, CSS, and other HTML add-ons to write web pages...

The remainder of this article will tell you what the site offers and how I depend on *PageSpinner* and certain features of my *.mac* – pronounced "dot mac" – account with Apple Computer to maintain it. For more on these tools than I mention here, see:

http://www.mac.com/1/learningcenter/
http://www.optima-system.com/pagespinner/

I created this Web site for the Vic Clark Chapter (#91) of the *Quarter Century Wireless Association (QCWA)*, whose 94 members are amateur radio operators who were first licensed at least 25 years ago. The motivation for the Web site came when we could no longer find someone willing to edit and publish a five-page newsletter mailed to chapter members every other month.

At the time it was created a few years ago, only about half our members had email addresses and access to the Internet. At the present time, 90 of our members have both working email addresses and Internet browsers. I believe that the existence of the Web site, and our decision to not print and snail-mail some version of it for those who didn't yet have on-line access, was one important reason for this increase. Most bought

Wintel machines so thank goodness that Internet protocols are platform-agnostic!

We communicate with the remaining four members using snail-mail or telephone whenever the message is relevant enough to warrant the effort. One of these members has been blind since birth; the second is a 98-year-old who would have a computer were it not for his advanced glaucoma; the third is a 97-year-old who chooses not to get it; and the fourth is an 80-year-old who spends a lot of his time away from home and doesn't long for additional stimulation.

The last paper issue of our newsletter was the January-February 2001 edition, and the Web site was put on-line in March 2001. Our membership seems to have increasingly used it since, so I've stuck with the original format, augmenting it slightly from time-to-time. The hit-counter on the main Web page currently shows more than 4000 hits since 2001.

Overview of the Web site

The site is organized as a main page with links to other pages. On the main page you will find, in this order:

Chapter 91 in brief: Things to know if you want to find us or join us.

Recent updates: Brief descriptions of files recently added to the *Folder of Downloadable Files*. The latter contains a membership application form in several formats, a map to our regular meeting place, biographies on members and former members who are now Silent Keys, and other items of perhaps enduring interest.

Also listed here are recent updates made to stories or photo albums previously posted. Not listed here are new stories, with or without associated photo albums, which are always found under "Recent Events."

The **Table of Contents (ToC)** is subdivided into:

- **Scheduled Events:** Brief descriptions of events currently scheduled for the remainder of the calendar year. These are listed in reverse chronological order to be consistent with the Web log format of the main and archived pages.
- **Recent Events:** A list of clickable links to stories on events that occurred during the current quarter. These stories appear on the main page in reverse chronological order following the ToC.
- **Archived Events:** A list of clickable links to stories on events that occurred in some previous quarter since 2001. Each article starts out as a "recent event" on the main page, but is moved with all the other stories in that quarter to an archive page when that quarter is no longer the current one. (Since only relative addresses are used, no links in any of these stories need to be changed for archiving.)

Following the stories of recent events is a list of links to all photo albums and downloadable files belonging to the site. The main page ends with a table giving contact information on the officers of the chapter.

How the Web site was built and is maintained

Apple's "dot-mac" *Homepage* provides the templates for the photo albums and the folder of downloadable files. These templates are very easy to use and work flawlessly. Given the compliments they've drawn from readers, I see no reason to try to improve on them.

The main page was created in, and is edited periodically, using *PageSpinner (PS)* by Optima Systems. It can be downloaded from their Web site and used for free for up to 21 days. I played with it for a few hours before deciding it would do just fine and bought a copy.

Between its self-tutoring features and Elizabeth Castro's easy-to-read manual, I had the first version of the Web site up and running one day after I started. Having no prior experience in either writing in a mark-up language or doing Web site design, I'd say it seemed surprisingly easy to do.

PS can be thought of as a specialized text editor with all the tools you need to insert HTML tags and clickable links, with plenty of help at your finger-tips. The type of HTML I use is "4.01 Transitional," but PageSpinner supports other types including XHTML 1.0.

PS allows you to quickly see how what you've

written will be rendered by any of the Internet browsers running on your machine. I've fallen into the habit of using Microsoft's *Internet Explorer as* my default editing browser, though I do check its interpretation against Apple's Safari on occasion.

Since I use only simple HTML constructs, a lot of cross-checking isn't required. There is a clickable "send me a message" button prominently on most pages of my Web site to facilitate feedback from readers, so if anything appears amiss on someone's screen, I usually hear about it.

I discovered which HTML constructs proved most useful by trial-and-error. I don't know how other HTML editors work, but PageSpinner makes this very easy. One good tool for doing that is *HTML Assistant* in the *Window* menu. Here are excerpts from the Help file section entitled "How do I use HTML Assistant?"

> Select the text in your document that you would like to format using HTML tags…
>
> Topics that are supported by HTML Assistant are displayed in HTML Assistant's "Topics" pop-up menu…
>
> Some topics apply formatting, linkage or information tagging of the selected text in your document… When this is the case, the button in the lower right corner will be named Apply.
>
> For other topics, the HTML Assistant Window just inserts a single tag in your current document. When this is the case, the button in the lower right corner will be named Insert.

I don't see how learning and using this mark-up language could be made any easier. When I've wanted more background in the language itself, consulting Elizabeth Castro's book provided it.

To give just one example of an HTML construct, consider how a list entry in the Recent Events subsection of the ToC is linked to the corresponding story using a relative address:

> 1. A clickable link in the ToC looks like this:
>
> <LI><A HREF ="#section 4021">February 21, 2004: Tour of WETA's facilities in Shirlington, VA</A></LI>

The stuff bracketed by the <A…> and </A> links to a target numbered "4021" – year 2004, 2nd month, 1st story for that month. That's a convention I've found easy to remember.

Bracketing that address reference is another pair of tags: *<LI>* and *</LI>*. These indicate the address is part of a list, another HTML construct that HTML Assistant will show you how to use.

> 2. The target of that clickable link looks like this:
>
> <A NAME ="section 4021">February 21, 2004: Tour of WETA's facilities in Shirlington, VA</A>

I've found it unnecessary to commit such constructs to memory as there are several ways the PS will provide them for you. Even simpler is to cut-and-paste whatever construct I'm looking for from elsewhere on the page I'm updating.

One more thing…

I've found maintaining this Web site educational and a lot of fun. It has become our chapter's official record. The last formal minutes I took as the long-time Secretary for the chapter can be found in the *Folder of Downloadable files*. The last minutes I wrote for the chapter cover the meeting held on September 15, 2001. Any chapter business that should not appear on a public Web site is handled via email or via another means.

Since I am the Secretary for Chapter 91, I am also expected to prepare chapter reports for publication in (1) the bi-monthly magazine *Auto Call* published for distribution to hams in the greater Washington, D.C. area by the Foundation for Amateur Radio (FAR) and (2) the quarterly *QCWA Journal* published by the national organization. Since I always update our Web site first, it is an easy matter to pick-and-copy material from it to satisfy these other two obligations.

Optima Systems
http://www.optima-system.com/pagespinner/ ■

Introduction to Fink

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My Background

I MADE my first "switch" about two years ago when I installed RedHat Linux on my PC. Linux is great, and I really enjoyed working with it, but I needed to upgrade my old 200Mhz PC for something more modern. I didn't want to use Microsoft XP but I needed to be able to run kids' games, which led me to the Mac. Here was a system that is a UNIX variant (Mac OS X is based on FreeBSD, a free UNIX implementation) that also has a decent range of games for kids (and me). I bought my first modern Mac (eMac G4/800) in December, and then I bought my iBook in March. (Did I mention that my wife loves the eMac?) One of the added bonuses of Mac OS X for old Linux users, as well as old Mac users who want access to a new area of applications is something called Project Fink. Fink allows users to install and run applications originally designed for Linux, including applications that use the X11 graphical interface – not just command line programs!

Fink History

The fink project was started by Christoph Pfisterer in December 2000 as a way to facilitate the use of Linux applications on Mac OS X. Fink uses the Debian Advanced Package Tool (APT) as the means of managing (installing, upgrading, removing) fink applications. The beauty of APT is that it recursively resolves dependencies – the bane of the Linux world. Simply put, an application may require another application to be installed for it to function. For example, if an application requires a certain graphics toolkit to function, then fink will also download and install the toolkit if it isn't already installed. Without APT, a user may spend a lot of time tracking down and installing dependent packages, particularly libraries. Fink simplifies all of this with the end result being a system that is easy for a user, even a non-UNIX geek to use.

Installation

Installation is straightforward. Simply go to the fink Web site (http://www.fink.sourceforge.net) and download the current version (0.6.2). You install it like any other application. The major difference in how it installs is that it creates a new directory, /sw. Fink will then install any fink applications into this directory, so if you decide that fink isn't for you all that you need to do is delete the /sw directory and it's gone.

The next application that I would recommend is Apple's X11 (http://www.apple.com/macosx/x11). X11 is the Linux equivalent of Aqua – it's the graphics engine for graphical applications. I say recommend because you can also install this as a fink application, but the Apple package is easy to install and gets good reviews on the Web sites and mailing lists that I've seen. Once this is installed you will need to make sure that fink can use it. To do this you run "fink install system-xfree86". After you do this you are ready to use X11 applications. (Editor's note: X11 is an optional install in Mac OS X 10.3, on the third disc in the set.)

One last application that I would recommend is FinkCommander (finkcommander.sourceforge.net). FinkCommander is a graphical user interface (GUI) for fink. It provides a simple interface for maintaining fink, as well as installing and removing fink packages.

That does it – you're now ready to install some fink applications and enjoy the wonders of X11!

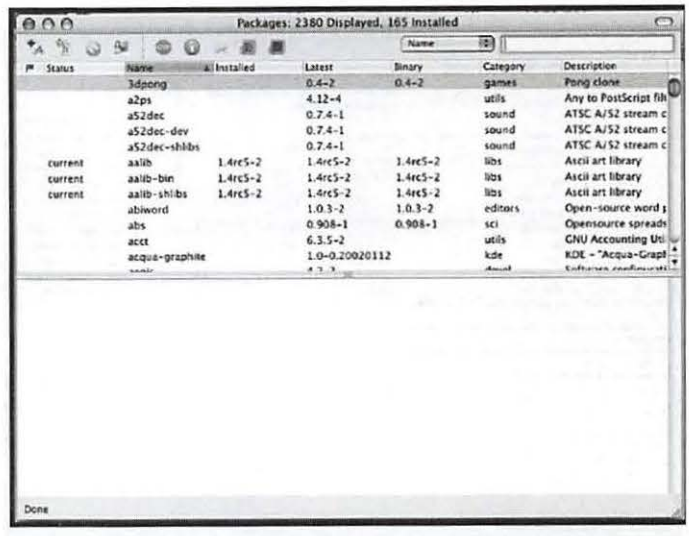

Figure 1. FinkCommander

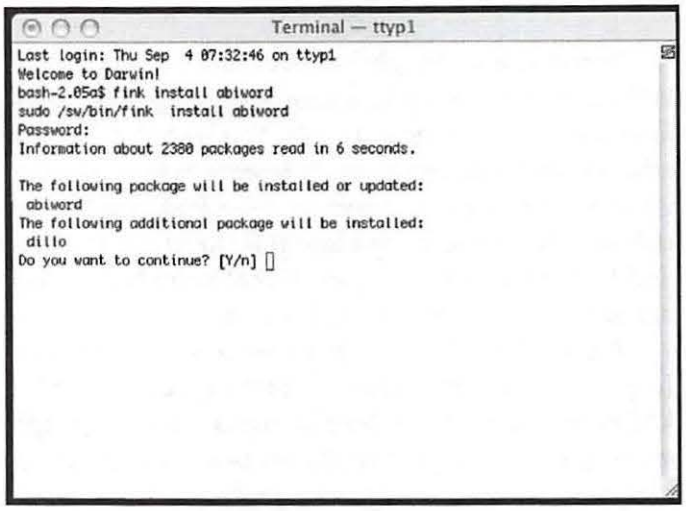

Figure 2. Installing a package from the command line

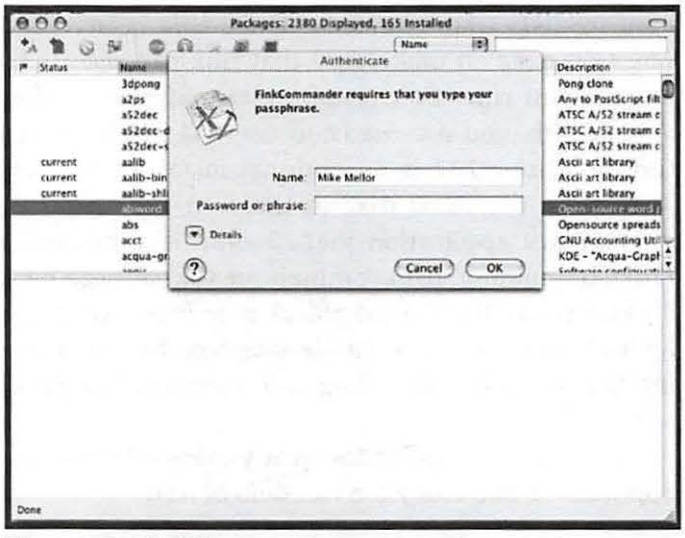

Figure 3. FinkCommander password prompt

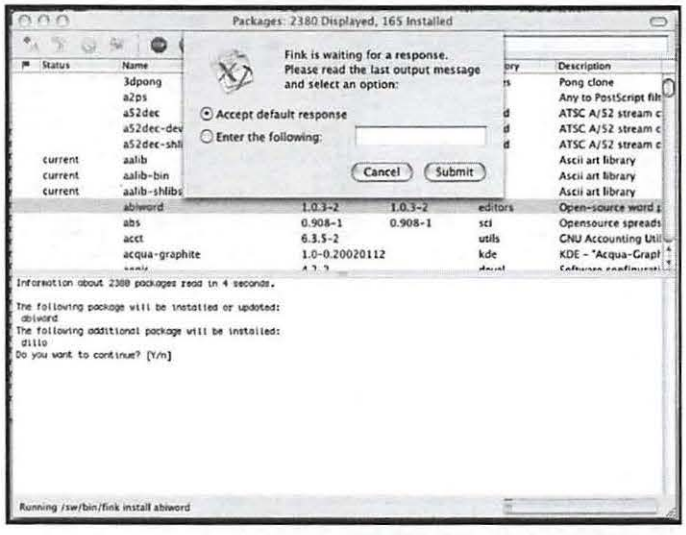

Figure 4. FinkCommander identifies dependent packages

Usage

The Command Line

While FinkCommander is a great way to maintain your fink packages, the command line method is fairly simple. To install a fink package from the command line you need to be connected to the Internet and have a terminal open. You also need to know the name of the package that you want to install. For example, you may want to install AbiWord, a great word processor. Simply type "fink install abiword" hit enter, and it will go to the fink Web site, determine what additional packages GIMP requires, and you'll see something like that shown in Figure 2.

Fink will prompt you for your password, then scans installed packages, and then tells you what additional packages are needed. In this example, fink needs to install dillo, a lightweight browser to meet the dependencies of AbiWord. Note that the additional packages required would vary depending on what you already have installed. Assuming you select yes, it will retrieve and install the packages.

FinkCommander (GUI)

FinkCommander provides the same functionality as the command line, but in a nice graphical package. You can choose to install applications from source code or binary packages. From what I can tell, the binaries that are compiled for Macs perform about as well as the applications that you compile from source, so go ahead and use the smaller binaries if you want. The only downside to binary packages is that they may be older than the source code versions. For example, a package may be available as source at version 12.3, where the binary version is at 11.5. Figures 3 and 4 show the installation process for AbiWord in FinkCommander. I have just selected to install from source and am asked to enter my password:

Note that the packages listed for install by FinkCommander are exactly the same as fink from the command line!

Applications

Now, here are some applications that I enjoy using through fink. If none of these look interesting to you there are thousands of other packages available at

the fink Web site (or listed in FinkCommander).

Gnu Image Manipulation Program (GIMP). GIMP is an image editor that is similar to Photoshop. It handles a huge number of image formats (TIFF, GIF, XPM, etc.) and has a great tool set. One of the things that I really like about GIMP is the ability for users (real power users, not me) to create scripts to automate some incredible tasks. There are a whole series of scripts to create buttons and logos that can be used in Web pages or anywhere else you would want to use fancy text. Another image manipulation script that I think is incredible is the "Old Photo" script. Basically, this takes an image and converts it to look like an old black and sepia photo, including adding fading, stains, and other "features" that create a truly stunning effect. I really don't know if Photoshop has anything like it, but it's worth the effort of installing GIMP for this feature alone (see Figures 5-9).

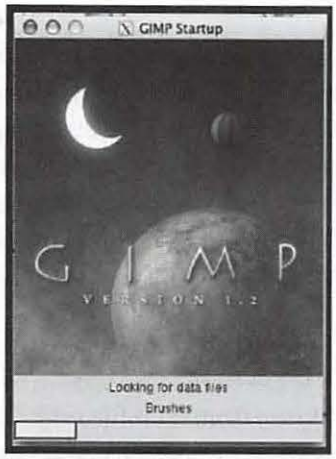

Figure 5. GIMP Splash Screen

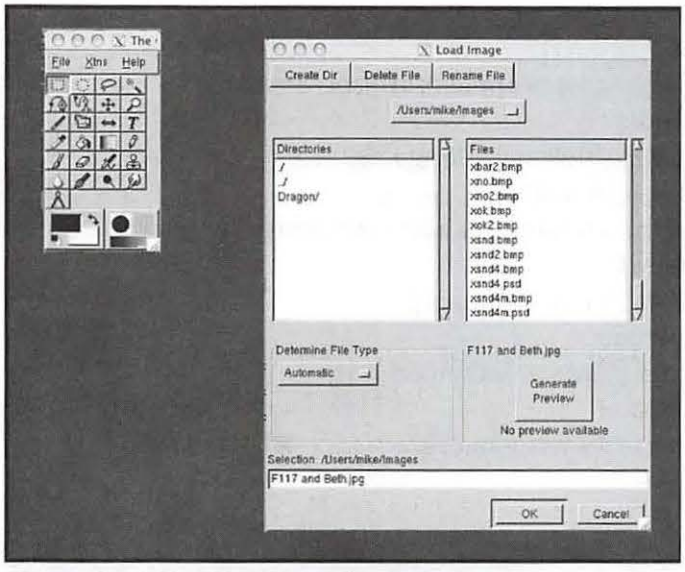

Figure 6. GIMP File | Open dialog

Python. Python is a great scripting language – it's easy to learn, powerful, embeddable, platform independent, and all the other great things that make a scripting language useful. Python comes preinstalled with Mac OS X, but without its standard GUI toolkit Tk (Tk, and its parent language TCL are the basis of a whole other article). I have been writing small applications in Python for about three years now, and while the command line scripts work fine with the installed version, none of the GUI programs run on the standard Mac OS X version. Again, a simple "fink install python" will install a version of python that allows me to run any of the GUI applications that I have written (again, Python could be another article).

Terminals. Yes, Mac OS X comes with a perfectly useable terminal program, but X11 based applications, including GIMP and the GUI version of Python, need additional text in the command line from the standard Mac OS X Terminal to run in X11. An easier method is to launch an application from an X11 based terminal. The Apple X11 package comes with a terminal application (called "term") that can be launched from the menu line by clicking on the X11 icon in the dock and selecting "Terminal" from the "Applications" menu. Once you have term running, executing an X11 based application is as easy as typing "gimp" into the command line. I use an AppleScript script to launch term (as well as the other applications) from a button in Finder or the Dock.

Emacs. Emacs, which stands for "extendable macros" is a way of life for many Linux types. Created by the Free Software guru Richard M. Stallman, it is a text editor, calendar, diary, E-mail program, and even a psychoanalyst! And that doesn't scratch the surface of this incredible piece of software. I use it as an editor for Python – it has revision control, text highlighting and can run Python scripts in a buffer (a workspace within the Emacs environment). I also use the emacs-wiki mode (yet another topic) as a place to keep notes on a variety of subjects.

(Editor's note: emacs is also available in Mac OS X without using fink. For more information, go into terminal and type:

man emacs

for help)

Figure 7. GIMP with an image open

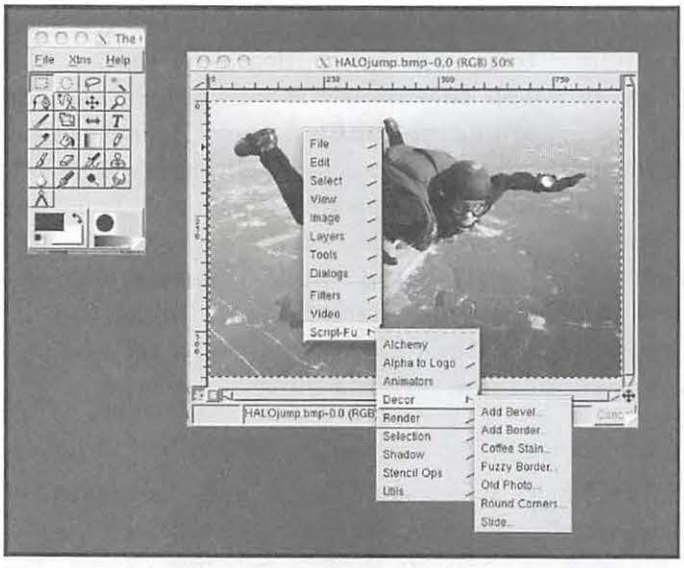

Figure 8. Selecting the GIMP "Old Photo" script

Figure 9. Final result of the "Old Photo" script

Conclusion

While this barely scratched the surface of fink and ported Linux software, I hope that it will encourage a few Mac OS X users to try a new area of computing. By installing a few simple packages, you have access to hundreds of applications that have been ported from the Linux world. Try it, you may be surprised at what you find!

Book/Links/Notes

Jepsen Brian and Ernest E. Rothman, *Mac OS X for UNIX Geeks*, O'Reilly & Associates, 2003. This book is absolutely essential for anyone who wants to learn about the cool/scary UNIX underpinnings in Mac OS X.

Apple's X11:
http://www.apple.com/macosx/x11
Fink:
http://fink.sourceforge.net
FinkCommander
http://finkcommander.sourceforge.net
GIMP:
http://www.gimp.org
Python:
http://www.python.org
Emacs:
http://www.gnu.org/emacs ■

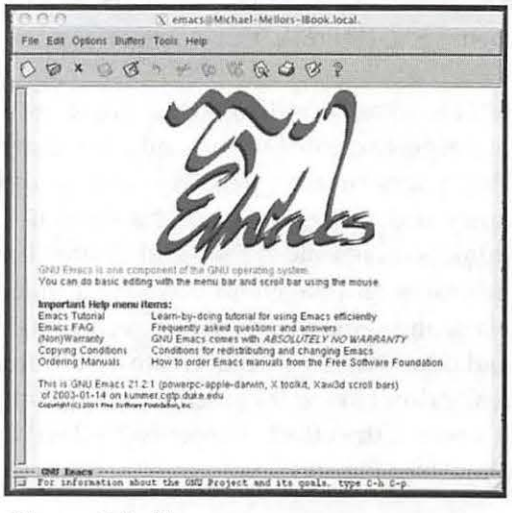

Figure 10. Emacs

They're Twisted for a Reason: One Man's Struggle with 802.3

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OVER THE course of 8 1/2 years as a Mac user (and 20 1/2 years of owning an Apple of some kind) I've accumulated several computers, with as many as four operating at any one time. My current total is that number, plus a Playstation 2 with a network module making "five with Cat-5." Only two are Airport-capable, and one of those two is the primary family machine, which already sits in the same room as the broadband router that connects everything to the Internet. The first-generation iMac 233, the Power Mac 7200/90, and the Playstation are either a wall or a floor apart from both the router and each other. Using a pure 802.11 wireless solution was clearly not going to be cost-effective, even with the price of access points and wireless routers dropping like stones. It was time to start running some cables and attaching connectors to leverage the built-in Ethernet of all those systems.

To lower the project price even further, I made the decision to eschew (at this point) putting in wall plates with Ethernet (RJ-45) jacks; instead I used the existing telephone or coaxial cable-satellite TV wall jacks and drilled a half-inch hole through which I could feed the networking cabling. For walls requiring penetration where no legacy wall plate existed, I purchased the least expensive wall plates I could find at the local home improvement store. These turned out to be the wall plates for the hard-wired round telephone connections, which cost less than a dollar each. Had blank wall plates been the cheapest, I would have drilled my own hole in them.

I already had a spool of Category-5 unshielded twisted pair (Cat-5 UTP for short) left over from an earlier wiring project at my previous home, so the next step was borrowing a termination kit for the 8-wire RJ-45 connectors which are the ubiquitous means to connect devices to each other. I had never actually made an RJ-45 connector before; my two prior houses were bought new and I did wire both

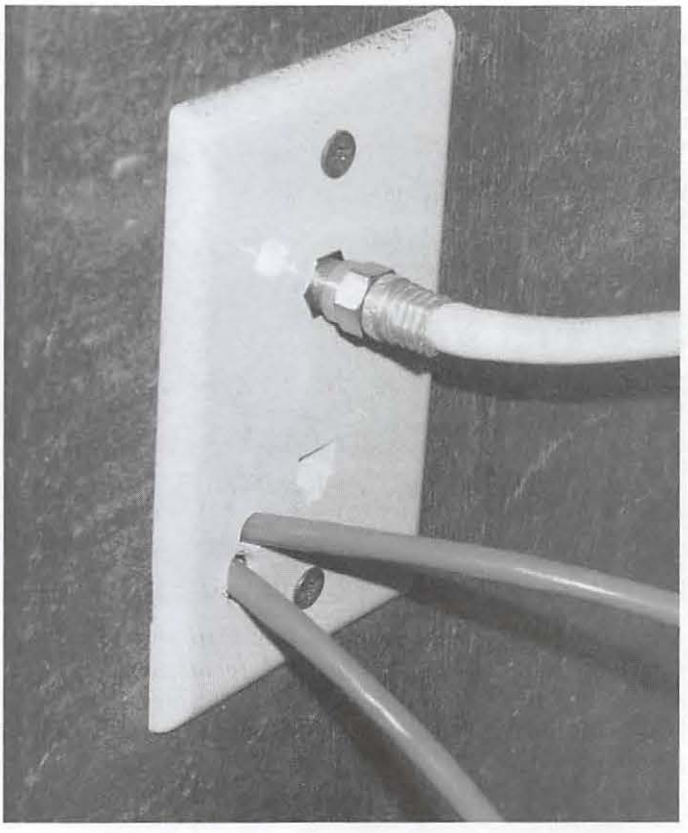

Fig. 1: Instead of installing separate RJ-45 jacks for each cable emanating from the router, the author modified the existing wallplates (by drilling holes through them) to allow the cables to simply "pass through".

with extra telephone, coaxial (cable TV), and security wiring before the drywall was mounted, but I had to subcontract the Ethernet termination work as part of a "builder option." The person loaning me the crimping tool also donated a large package of the clear plastic RJ-45 connectors and said I could use as many as I needed. That turned out to be critical, as you will see.

One of the target machines was installed in a room adjacent to the router. I had a sufficiently long pre-made Cat-5 cable in stock, so adding that first machine to the network was as simple as punching a hole in an interior wall, mounting the round-hole wall plate mentioned above, and fishing the cable through.

The other two machines were installed in the room immediately below the router, so here begins the true odyssey. I determined that the easiest route between floors was inside the closet of the upstairs room, which conveniently sat mostly atop the unfinished laundry room. I drilled the extra hole in the telephone wall plate of the room with the cable modem (fig. 1), drilled another hole inside the closet through the drywall *behind*

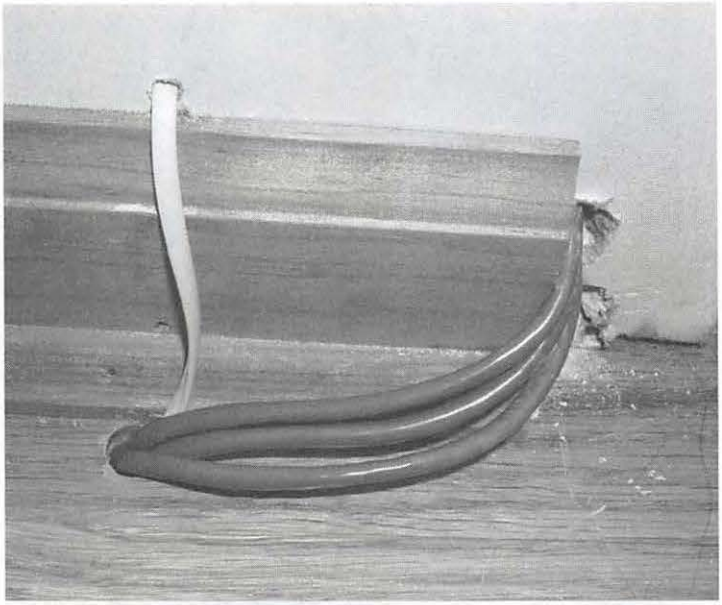

Fig. 2: On the opposite side of the wall shown in Fig. 1, two additional holes were drilled to allow access to the unfinished portion of the lower level. Since the holes are inside a closet, they are not noticeable to the casual observer.

the wall plate, and then drilled the final hole through the floor of the closet, down into the laundry room (fig. 2). I put the second hole an inch above the floor, in an area normally covered by baseboard so I could easily hide it if I ever sell the house. The third hole was drilled as far in the corner of the closet as I could muster, making it essentially invisible except when standing inside the closet. With a significantly greater amount of effort, I imagine I could have avoided the second hole by drilling from below up through the hollow space in the wall above. However I had less than 8" of vertical clearance from below (fig. 3) so I would have had to buy or borrow more sophisticated tools than I owned. For me it was not worth the effort.

Instead of precisely measuring the lengths of the cables needed to reach the two downstairs locations, I "guesstimated" and added 10% more length as a "fudge factor" (the latter technique being common in all the trades, I've been told). Since my arm span (the distance between my hands when stretched as far apart as possible) closely matches my height (six feet), I counted out two varying lengths and cut the cable at each point. With a helper, I could have also pulled the 'runs' in succession and made sure they were long enough before making the cuts; let's just say my wife does not share my passion for technology (nor, after taking care of our three kids all day, my after-10 pm work schedule for this project.)

The first cable was cut at around 30 feet; the second at close to 75 feet because it had another wall to pass through and was destined for the far side of the downstairs recreation room. This will become significant, as you the reader will see.

Having never terminated Cat-5 before, I relied on the "sample connector" which was in the pouch with the RJ-45 crimping tool to determine the proper arrangement of the eight wires. I knew that only four were actually used, but that the common practice was to connect all eight because it is actually simpler to line everything up inside the connector if all the wire slots are filled. Looking at the side of the connector opposite the clip and checking left to right, here's what I *thought* I saw:

Orange/white stripe
Orange
Blue/white stripe
Blue
Green/white stripe
Green
Brown/white stripe
Brown

Those of you experienced in the fabrication of EIA-213B connections know right away where this story is headed. I dutifully crimped this wire pattern on both ends of both cables, and was rewarded with immediate success when I tested the shorter cable by accessing the Internet and personal file sharing. However, the longer cable was only "half-working"; the "link" and "speed" lights on the router were showing the cable had a valid connection at 100mbps, but only inbound packets were making it through. Every packet headed back to the remote end resulted in a transmission error. I re-did both ends of this longer cable using the same wire pattern as before, and the result was the same. At this point I feared that one (or more) of the wires was damaged somewhere along the length of the cable, and I had a long troubleshooting session ahead of me. I tried two more sets of connectors with two different wire patterns to try to isolate the 'bad wire', but it made no difference. This is why it was invaluable to have so many extra connectors available.

It was then that I went back and looked at some of the other Cat-5 cables I have lying around the house. One of them only had the four 'live' wires in the connector, and clearly showed that pins 1-3 and 6 were the active ones. On my cable, 1 and 2 were the wholly- or

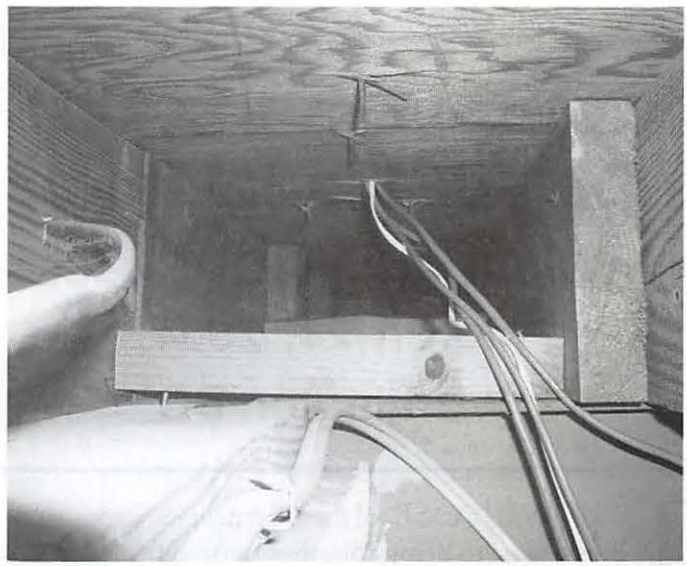

Fig. 3a, 3b: The holes drilled in the floor emerged in a hard-to-reach area of the unfinished area of the basement, requiring barbeque tongs to retrieve the wires once they were pushed through.

partially-orange wires, but 3 was the blue/white wire and 6 was the solid green one. This arrangement worked fine for the 30' cable, why not the longer one?

Here's why: recall that 100Mb Ethernet requires unshielded *twisted pair* wiring. Although I knew that with CAT-5, the wires with shared colors were wrapped around each other in a helix for the length of the cable, I failed to grasp the importance of it. When wired correctly (which will be enumerated momentarily), the same data is passed down both the solid and striped wires of the same color. Because they twist around each other, they are far more resistant to both attenuation (loss of signal strength over distance) and electromagnetic noise (such as house electrical wiring and radio waves) than if only one of the wires passes data. Purists (or übergeeks) will care that while the two wires carry the same information, they are of opposite phases to make error correction a breeze; this is too far "in the weeds" for 90% of readers.

I also consulted an Internet resource on Cat-5 and found that the following pattern was one of the two approved arrangements.

Orange/white stripe
Orange
Green/white stripe
Blue
Blue/white stripe
Green
Brown/white stripe
Brown

In a nutshell, the green/white and blue/white were swapped in my initial cables, so that the data signal traveling in one direction was split between one of the blue pair wires and one of the green pair wires. The combination of attenuation and/or electromagnetic noise created a situation akin to trying to shout across a crowded, noisy auditorium and expecting to be understood. Frankly, I was lucky my first cable (wired the wrong way) worked at all; it greatly benefited from being short enough that the signal could still be discerned at the far end. Once I wired the connectors correctly, the longer cable worked flawlessly.

I came out of this experience far wiser, and with an Ethernet wired home, at a cost of less than $5 (for wall plates). ■

Craig Contardi is currently the Secretary of Washington Apple Pi. He is married, with three children between the ages of 4 and 8.

Notes from the First Day of the Internet Commons Congress

March 24, 2004

Washington DC

THE PURPOSE of the Internet Commons Congress was to bring together people from diverse groups to share strategies and ideas for protecting the commons from constricting infringements and restricting enclosures. A wide variety of folks showed up, from both coasts and places in between. A hearty exchange of ideas took place in the conducive setting at the University of Maryland Shady Grove Campus.

Daniel Berninger, the host and co-organizer of the conference, welcomed everyone. His low-key, even-keel demeanor was helpful in setting the right tone for the conference—a tone of respectful, thoughtful inquiry into the truth.

John Perry Barlow, co-founder of the Electronic Freedom Foundation (EFF), kicked off the conference describing how he came to co-found EFF in the early 1990's. He described some of the battles EFF has won and some of the battles EFF is fighting. He explained about the origins of the Declaration of Independence for Cyberspace, which he wrote back in 1997 after attending the World Economic Submit. "The document admittedly sounds arrogant," he explained. "although many of the ideas in it have validity." The document was written in a moment of frustration after the World Economic Summit, where government entities were just not "getting it." (i.e. understanding the nature of the Internet.)

Barlow talked a little about Microsoft's "trusted computing" initiative, which he feels is something that will lead to "political rights management." (Richard Stallman, founder of the Free Software Foundation, feels similarly uncomfortable with "trusted computing," which he refers to as "treacherous computing.") The negative implications of Microsoft's "Palladium" initiative were also described. (The dangers of Palladium are described well on the New Yorkers for Fair Use web site. http://www.nyfairuse.org under the Actions Items at the top left side of the site.)

"A wide variety of folks showed up, from both coasts and places in between. A hearty exchange of ideas took place in the conducive setting at the University of Maryland Shady Grove Campus."

Some of the panelists who presented were simply stellar. Here is a summary of what some panelists had to say. In the first panel, on "The Rise of Unlicensed Spectrum," Tim Pozar, co-founder of the Bay Area Wireless User Group, told about the wireless Internet he is helping to set up on mountain tops in the Bay Area. Several ISP's have donated bandwidth for this project. The mountain top dishes cost about $1000 each and beam the Internet down to distribution points up to 8 miles away. The distribution point can be mounted on the roof of someone's house and can distribute wireless Internet to the neighborhood. Noted Internet thinker Lawrence Lessig is installing one of these on the roof of his house.

Harold Feld, associate director of the Media Access Project, a nonprofit public interest law firm, had many interesting things to say about media ownership and advocacy efforts at the FCC. He pointed out in a friendly way that people who want to impact the FCC and Congress need to spend more time agreeing about their common viewpoints, rather than spending time looking for minor differences in their viewpoints. Effecting change is much more difficult when there is no unity of voice.

Stuart Gannes, director of the Standford Digital Vision Project discussed several uses of tech-

nology in developing nations, including Grameen Phones, which are standard cell phones that reach remote villages using a microenterprise model. He explained that there are more people who live in cities in India (350 million) than all the people who live in the United States. He also explained that 700 million people in India live outside of cities. This translates to roughly one in ten persons on planet Earth is a person in India living outside of a city. All of these people want to communicate -- and are just getting access to communications tools that meet their needs.

In the second session, "Broadband and Bridging First Mile Disconnects," Terry McGary, from the Merton Group, explained various projects around the country he is involved with that have private/public partnerships to bring broadband (including fiber) to the home. He described projects in southern New Hampshire and in Utah (the Utopia project.) Fiber costs $25,000 per mile to string, so it can only be economically feasible in certain communities. Wireless Internet can extend fiber's reach.

Throughout the day various fascinating info-nuggets that were shared, including the fact that it costs telephone companies less than a penny per month to offer call-waiting—yet they charge several dollars for the service. Many telecom services costs are hard to quantify and so the price of the service ends up being "whatever the market will bear."

Various presenters discussed some of the unsavory practices of phone companies and cable companies—practices that take place because of monopoly (or duopoly) status. Wireless Internet (and voice-over-ip) were touted as ways of short-circuiting the power of these monopolies. The prevailing viewpoint is that the monopolies get away with their bad behavior because we, the public, let them.

There were many interesting presenters covering the subject of the Internet commons from many angles. One of the high points of the day was when Richard Stallman, founder of the Free Software Foundation, joined the conference via telephone for about 20 minutes.

The day ended with an engaging roundtable discussion on "Information freedom and the ubiquity of the Internet, computers and code." Jay Sulzberger, director of New Yorkers for Fair Use, was one of the most entertaining and engaging speakers of the day. Jamie Love, executive director of the Consumer Project on Technology, explained that he's been doing a lot of work on world health issues (i.e. pharmaceuticals in developing nations) and is glad to be back visiting consumer Internet issues. Fred von Lohmann, staff attorney at the Electronic Freedom Foundation, was particularly astute and clear-headed in his comments. It's no surprise that he recently received the California Lawyer of the Year award. I was not able to track his blog, but I'm keen to follow the work he's doing. He is one hundred percent on target and one of the best hopes for public interest Internet advocacy.

"Throughout the day various fascinating info-nuggets that were shared, including the fact that it costs telephone companies less than a penny per month to offer call-waiting—yet they charge several dollars for the service."

The value of this conference is that I was exposed to many peers and colleagues who I had never met or heard before. I'll be better able to explain telecom, privacy and Internet commons matters to friends and colleagues. Kudos to the conference organizers, Seth Johnson and Daniel Berninger. They succeeded in their goals.

(I wasn't able to make it to the second day of the conference, but the panelists of the second day looked to be even better than the first day's panelists.) ■

Blogs of some of the conference participants:
http://www.pulver.com/
http://www.templetons.com/
http://www.frankston.com/
http://www.danielberninger.com/blogger.html
http://www.lessig.org/blog/
>

Phil Shapiro, pshapiro@his.com

Digital Photography: Are You Ready for a Dye Sublimation Printer?

By Rich Lenoce

THREE YEARS AGO, I purchased a $199 photo-quality ink jet printer—it was quickly relegated to the basement. I was never happy with the quality. Many photos showed bands of lines (banding), inks would smear when touched, black and white prints always had a bluish cast, photos would fade in a matter of months when hung on the refrigerator, and the printer needed to be calibrated and aligned for proper color reproduction. The effort to get a good print was trying my patience. Two months later a "new line" of improved printers would be released claiming to fix some of the problems but spending another $200 for what I consider to be bug fixes was out of the question. I switched to iPhoto's on-line print ordering but as someone who once had his own darkroom, the urge to print at home was still there. I've since been waiting for a technology that resolved ink jet issues, not with improvements and patches, but a technology that is photo-ready, providing ease of use and the highest quality, at prices comparable to ink jets. That technology is here, and it's called dye sublimation.

For years, graphics professionals have used expensive dye sublimation printers to print high quality archival photographs from digital images but the printers started at $10,000 and prints were $20 or more each. Dramatic advances in technology have lowered prices to consumer levels. Dye sublimation brings the absolutely stunning quality of a highend photo lab—at ink jet prices.

How does dye sublimation work? Ink jet printers release colored inks from cartridges in dot patterns on to a paper's surface. Dye sublimation is a continuous tone thermal transfer process that uses no dots or ink cartridges but instead uses a heated print head to transfer cyan, magenta, yellow and black ink from a ribbon into the paper. During the final stage of printing, a clear laminate coating is applied to protect the paper and inks from ultra violet light, humidity and physical damage.

The dye sublimation process has several advantages. First, the continuous tone is more akin in appearance to true photographs, providing photo-quality resolution and color that perfectly matches the original. Black and white images remain true without the colorcast problem that has plagued most ink jets. The edges of objects in a dye sublimation print remain sharp and don't exhibit the softening or dithering that ink jet prints display caused by the ink dots blending together. The problem of color banding is also eliminated.

Dye sublimation is a simpler process than ink-jet printing, requiring no alignment or calibration by a computer, so no computer is required! Most printers can be unplugged from the computer and can be used standalone by importing images directly from a compact flash, multimedia card or memory stick or directly from the camera. The printers can be powered from a battery, car cigarette lighter, a laptop's USB connection or a portable AC adapter. Canon's $150 CP200 is completely portable and is barely larger than the 4" X 6" prints it produces. It even fits in a camera bag with the camera and produces outstanding photos quickly—about 65 seconds— with the touch of a button. Since there are no multiple ink cartridges, only a printer ribbon housed in a single cartridge, installation is uncomplicated. Also, because dye sublimation printers don't need all of the bells and whistles to align, size and color calibrate their prints, their print drivers are very basic, making each and every printer Mac OS compatible!

Finally, dye sublimation prints have the potential to last longer. Since the paper receives a clear laminate coating during the final stage of printing, the dyes are protected from air, humidity and ultraviolet light that cause color ink jet prints to fade. This also provides a layer of protection from physical damage. Though manufacturers of ink jets have made tremendous improvements in producing archival quality images, the inks still reside on the surface of the paper where they can be damaged by the environment, poor handling or storage. Holding a dye sublimation print, it is nearly impossible to tell the difference between it and a high quality professionally processed photo.

Dye sublimation printers have been more expensive because of the heated print head. Recently, prices have dropped to be competitive with the high-end ink jet printers and in some cases cost less. Prices start at around

$150 for a small 4" X 6" photo printer and go up in price based on the maximum size of the prints. An 8" X 10" dye sublimation printer costs around $269, less than the price of a top of the line ink jet. These are certainly higher than the inexpensive photo-quality ink jet printers we're used to, but are more comparable in price and exceed the performance of many high-end ink jet printers. Prices are dropping rapidly as more manufacturers are offering more models.

Once the printer is purchased, dye sublimation prints cost about 50 cents per print, comparable to a professional photo print, and it would be hard for anyone to tell the difference. And the accuracy of dye sublimation printing means less wasted paper and ink, so if you are put off by the higher cost of the printer, it should pay for itself in cost savings.

Manufacturers of consumer dye sublimation printers include Canon, Sony and Olympus.

One drawback is that dye sublimation printers are photo-only, and are not recommended for doing text. You'll still need an ink jet ($40+) or laser ($199) to print text. I have had no trouble finding and ordering the paper and ribbon cartridges on the Internet, but I have had trouble locating them at local stores. That should change as they grow in popularity. When shopping for a dye sublimation printer, you will notice the specifications are different than their ink jet counterparts.

Printer manufacturers for both ink jets and dye sublimation printers specify resolution in dots per inch, but due to the nature of the continuous tone process, the dpi is far less for dye sublimation then it is for an ink jet, yet the quality is as good or better. A 300-dpi dye sublimation specification equates to the best photo-quality ink jets. To truly compare the two technologies, you'll need to see both printers in action and compare the same prints side by side.

I have found my $150 Canon gives me photostore quality with ink jet convenience.

Though it only produces 4 x 6 prints, I use iPhoto's ordering feature for the occasional large print. Best of all, the printer takes up little space and can be stored away in small carrying case when I'm not printing photos. ■

From the January 2004 ***Connecticut Macintosh Connection***.

Washington Apple Pi Tutorials May-July 2004 New Instructor and Summer Schedules

WE WELCOME Nancy Little to the Tutorial Staff. Nancy is a long-time Macintosh user. Before her retirement, she helped students and teachers in Montgomery County Public Schools learn to use Macintoshes. She is very patient and can explain concepts in many different ways to aid beginning computer users.Our tutorial staff will be taking some long-deserved vacations and Pat Fauquet will not be teaching classes in July and August as she will be packing, moving to her new home in Fairfax Station. She will return in September or as soon as she can find her way among the boxes.

Sign-ups

To sign up for a class, call the Washington Apple Pi office on Monday, Wednesday, or Friday from 10:00 a.m. to 2:00 p.m. Our volunteers will enroll you in the class and they can take credit card payments by phone. You can also sign up by sending an e-mail to tutorials@wap.org. Include your name, address, phone number, WAP membership number and the name and date of the class you want to take. Then mail a check for the class fee to Washington Apple Pi Tutorials, 12022 Parklawn Drive, Rockville MD 20852. Make the check payable to Washington Apple Pi and please send a separate check for each class you are signing up to take. Your credit card will be charged or your check will be deposited on the day of the class.

Cancellations

Class will be canceled if there are less than three participants signed up 3 days before the class. You will be notified by an e-mail message or a phone call no later than the day before the class regarding the cancellation.

You will also be notified by e-mail when there are enough participants for the class to be held.If you decide not to take a class, you must cancel your registration in a class 48 hours before its starts in order not to be charged for the class. In the case of illness or extreme circumstances, this policy can be reviewed. Send a message to tutorials@wap.org and include your phone number.

Inclement Weather Policy

In the case in inclement weather, Washington Apple Pi classes are canceled if school is canceled or delayed for two hours in Montgomery County or Fairfax County Public Schools. If the schools in either county open one hour late, all WAP daytime classes will begin one hour late. If evening activities are canceled for the schools, all WAP classes are also canceled. If weekend activities are canceled for the schools, all Washington Apple Pi classes are canceled. Classes canceled due to inclement weather will be rescheduled. You will receive a phone call or e-mail with further information.

Introductory Classes

There are two distinct class series at this level. The Mac Basics classes are taught at a slower pace with class time devoted to practicing concepts as they are taught. The Mac OS X classes are for users with more computer experience. The pace is faster and each topic is covered in more depth. The four Mac Basics classes should be taken in order. The same is true for the three Mac OS X classes. It is suggested that everyone take the Understanding Mac OS X class before beginning the Mac OS X series, but the class is not mandatory.If you desire classes for Mac OS 9 or earlier, please call the office to have your name placed on the list for those classes. You will be contacted when there are three or more people who desire to take the class. All classes at Washington Apple Pi are limited to no more than six students.

Introductory Classes

Mac Basics 1 - The Finder, Menu Bars, Windows and Toolbars

Thu, May 6, 2004, 1:00 PM to: 4:00 PM orWed, Jun 2, 2004, 9:30 AM to: 12:30 PM or Wed, Jun 30, 2004, 1:00 PM to: 4:00 PM

Learn the finer points of making music, data and video CDs in this three hour class. Learn all about Roxio Toast Titanium 6 and the Apple Disc Burner software. Learn how prepare data, optimize files and make labels too. This is a hands-on class for the novice who needs help getting started with their computer. It is designed for the person with little or no background with computer use. The purpose of the class is to make a person feel comfortable and secure with their Macintosh The subjects covered will include computer parts, cables, the Finder, Dock, Menu Bar, Windows, Tool Bars and Sidebars. This course is offered as one three hour session.Instructor: Jim Ritz (May), Nancy Little (June, July)Member Cost: $50.00, Others: $100.00

Course Prerequisites: None

Mac Basics 2 - Introductory Word Processing

Thu, May 13, 2004, 1:00 PM to: 4:00 PM orWed, Jun 9, 2004, 9:30 AM to: 12:30 PM or Wed, Jul 7, 2004, 1:00 PM to: 4:00 PM

This is a hands-on class for the novice who needs help getting started with their computer. It is designed for the person with little or no background with computer use. The purpose of the class is to make a person feel comfortable and secure with their Macintosh The subjects covered will include how to format documents, how to save documents, how to spell-check documents, and how to print documents.

Instructor: Jim Ritz (May), Nancy Little (June, July)Member Cost: $50.00, Others: $100.00

Prerequisites: Mac Basics 1

Mac Basics 3 - Folders, Views, Files and Finding Things

Thu, May 20, 2004, 1:00 PM to: 4:00 PM orWed, Jun 16, 2004, 9:30 AM to: 12:30 PM or Wed, Jul 21, 2004, 1:00 PM to: 4:00 PM

This is a hands-on class for the novice who needs help getting started with their computer. It is designed for the person with little or no background with computer use. The purpose of the class is to make a person feel comfortable and secure with their Macintosh. The subjects covered will include how to use Folders to keep your computer organized, how to use the Views options to enhance your user experience, and how to find files on your computer.Instructor: Jim Ritz (May), Nancy Little (June, July)Member Cost: $50.00, Others: $100.00

Prerequisites: Mac Basics 1 and 2

Mac Basics 4 - If Something Goes Wrong

Thu, May 27, 2004, 1:00 PM to: 4:00 PM orWed, Jun 23, 2004, 9:30 AM to: 12:30 PM orWed, Jul 28, 2004, 1:00 PM to: 4:00 PM

This is a hands-on class for the novice who needs help getting started with their computer. It is de-

signed for the person with little or no background with computer use. The purpose of the class is to make a person feel comfortable and secure with their Macintosh The subjects covered will include common computer and printer problems and how to fix them, how to reset your user password, and how to start your computer from the Apple Restore CD that came with your computer.Instructor: Jim Ritz (May), Nancy Little (June, July)Member Cost: $50.00, Others: $100.00
Prerequisites: Mac Basics 1, 2 and 3

Mac OS X 1- The Finder, Menus and the Dock
Thu, May 6, 2004, 9:30 AM to: 12:30 PM orThu, Jun 3, 2004, 9:30 AM to: 12:30 PM orThu, Jul 1, 2004, 9:30 AM to: 12:30 PM
This is the first in a series of classes covering Mac OS X. This class covers the menu bar, dock, and finder window. Students will learn their functions how to customize them fit the work style of the computer user. Everyone is encouraged to attend this class before continuing on in the WAP Tutorial Program.Instructor: Jim Ritz
Member Cost: $50.00, Others: $100.00
Prerequisites: Intermediate Macintosh Skills

Mac OS X 2 - Users, Saving, and Finding
Thu, May 13, 2004, 9:30 AM to: 12:30 PM orThu, Jun 3, 2004, 1:00 PM to: 4:00 PM orThu, Jul 8, 2004, 9:30 AM to: 12:30 PM
This class is intended for users who have a good basic understanding of Mac OS X. It will include in-depth coverage of the Users folder and what it contains, how to save and file documents, how and why to use file extensions, and how to find files by name, date, type and content.Instructor: Jim Ritz
Member Cost: $50.00, Others: $100.00
Prerequisites: Intermediate Macintosh Skills

Mac OS X 3 - Using the System Preferences
Thu, May 20, 2004, 9:30 AM to: 12:30 PM orThu, Jun 10, 2004, 9:30 AM to: 12:30 PM orThu, Jul 22, 2004, 9:30 AM to: 12:30 PM
In this class we will go through the System Preferences application, spending time on each item located in it.Instructor: Jim RitzMember Cost: $50.00, Others: $100.00
Prerequisites: Intermediate Macintosh Skills

Continuing Macintosh

Using the Address Book and iCal
Mon, May 17, 2004, 9:30 AM to: 12:30 PM
Mac OS X includes iCal and the Address book. In addition to personal organization, these applications can be used to print a variety of items and they can be used to synchronize the information between various devices. This class will help you learn to use these data gathering programs more efficiently.Instructor: Pat Fauquet (Mon, Wed) or Jim Ritz (Thu)
Member Cost: $25.00, Others: $75.00
Prerequisites: Intermediate Mac Skills

Using Palm based PDA and Phones with the Mac
Mon, May 17, 2004, 1:00 PM to: 4:00 PM
Mac OS X, The Address Book, iCal and iSync heighten the Palm users interaction between their PDAsand computers. Student in this class will learn how to export their Palm Desktop data to iCal and theAddress Book and then how to use iSync and the Palm Desktop software to sync and upload files tothe phones and PDAs.Instructor: Pat Fauquet
Member Cost: $50.00, Others: $100.00
Prerequisites: Intermediate Mac Skills

Getting the Most from Your .Mac Account
Mon, Jun 14, 2004, 9:30 AM to: 4:00 PM
Apple's .Mac accounts have so many uses and features. Are you getting the full value of your account? Come learn how to access your mail and address book and calendar from any computer, share your photos and files with family and friends and back up your important documents and files. Learn how to use Virex and keep it up to date. Learn about the dotmac.info web site and learn about the things hidden in your iDisk. Instructor: Pat Fauquet
Member Cost: $100.00, Others: $150.00
Course Prerequisites: Intermediate Mac Skills

Getting Organized and Backing Up Your Data
Mon, Jun 7, 2004, 9:30 AM to: 11:00 PM
This class is an introduction to procedures that increase the efficiency of the Macintosh user's experience and in methods of archiving user data. We will discuss what a hard-drive is and how it stores information, where things are stored in Mac OS X, Mac OS X Libraries and what is stored in them, proper backup procedures and methods

of performing backups.Instructor: Pat Fauquet (Mon, Wed) or Jim Ritz (Thu)
Member Cost: $25.00, Others: $75.00
Prerequisites: Intermediate Macintosh Skills

PDF files, Mac OS X Preview and Acrobat Reader
Mon, Jun 7, 2004, 11:15 AM to 12:45 PM
This class will cover how to make pdf files in Mac OS X, how to use Mac OS X preview to search and read files, and how to use Adobe Acrobat reader to use text and images from pdf files.Instructor: Pat Fauquet
Member Cost: $25.00, Others: $75.00
Prerequisites: Intermediate Mac Skills

Lets Burn Some CDs
Mon, Jun 7, 2004, 1:00 PM to: 4:00 PM
Learn the finer points of making music, data and video CDs in this three hour class. Learn all about Roxio Toast Titanium 6 and the Apple Disc Burner software. Learn how prepare data and make labels too.Member Cost: $50.00, Others: $100.00
Instructor: Pat FauquetMember Cost: $50.00, Others: $100.00
Prerequisites: Intermediate Mac Skills

Installing Updates, Downloads, and Software
Thu, Jul 1, 2004, 1:00 PM to: 4:00 PM
This class is an introduction to the types and methods of installing updates and software in Mac OS X. Discussion will include installing System Updates in Mac OS X, the use of .dmg and package files, how to deal with compressed and encoded downloads, installing from CDs, custom Installations, uninstalling software, finding and installing application updates and finding and installing printer, scanner and other hardware driver updates.Instructor: Jim Ritz
Member Cost: $50.00, Others: $100.00
Prerequisites: Intermediate Macintosh Skills

Troubleshooting Computer and Printer Problems
Thu, May 27, 2004, 9:30 AM to: 12:30 PM orThu, Jun 10, 2004, 1:00 PM to: 4:00 PM
This class will cover how to recognize potential problems, how to use the Mac OS X CD to repair directory problems and reset passwords, how to recognize and solve preference file issues and how to solve printer issues.Instructor: Jim RitzMember Cost: $50.00, Others: $100.00
Prerequisites: Intermediate Macintosh Skills

Digital Imagery

Using iPhoto
Mon, May 24, 2004, 1:00 PM to: 4:00 PM orMon, Jun 21, 2004, 9:30 AM to: 12:30 PM
Learn to use iPhoto to import, organize, edit and share your digital images from cameras, scanners and Picture CDs. Learn how to make slideshows, books and prints. Bring your digital camera full of images or a Photo CD to learn how do these projects. Instructor: Pat Fauquet
Member Cost: $50.00, Others: $100.00
Prerequisites: Intermediate Macintosh Skills

How to Fix a Bad Photo
Wed, May 26, 2004, 9:30 AM to: 12:30 PM orMon, Jun 21, 2004, 1:00 PM to: 4:00 PM
Not all photos can be rescued, but using the levels adjustment tool can do a lot to fix your photos quickly and easily. You will also learn when and how to sharpen an image and how to crop and straighten images effectively using iPhoto and Adobe Photoshop Elements or Adobe Photoshop. Bring your digital camera full of images, a Zip 100 MB Disk or CD with digital images to use in class.Instructor: Pat Fauquet
Member Cost: $50.00, Others: $100.00
Prerequisites: Intermediate Macintosh Skills

Selections and Layers in Photoshop Elements
Wed, May 26, 2004, 1:00 PM to: 4:00 PM orMon, Jun 28, 2004, 9:30 AM to: 12:30 PM
The ability to add layers to an image and then to work one each layer individually demonstrates the real power of Photoshop Elements. In this class we will use layers to adjust parts of an image and add elements such as type and a different background to images. Bring your digital camera full of images or a CD with digital images to use in class.Instructor: Pat Fauquet
Member Cost: $50.00, Others: $100.00
Prerequisites: Prerequisites: Intermediate Macintosh Skills and How to Fix a Bad Photo

Digital Photography Clinic
Mon, Jun 28, 2004, 1:00 PM to: 4:00 PM
This clinic is a follow-on course for users who have taken an Adobe Photoshop Elements or digital photography course at the Pi . Students will have the opportu-

nity to ask questions about Adobe Photoshop Elements or iPhoto and they will learn new techniques. Bring your camera and projects to class.Instructor: Pat FauquetMember Cost: $50.00, Others: $100.00
Prerequisites: Intermediate Macintosh Skills

Fun With Your Scanner
Mon, May 24, 2004, 9:30 AM to: 12:30 PM
Bring your scanner, its software, cables and power supply and explore what you can do with it. Bringa few pictures that you would like to fix, some printed material you would like to convert to text andbring a few small items you would like to have "pictures" of. We will have a "scanning" good time! This course is taught in one three hour session.Instructor: Pat FauquetMember Cost: $100.00, Others: $150.00
Course Prerequisites: Intermediate Mac Skills

Productivity

Introduction to Spreadsheets
Thu, Jul 8, 2004, 1:00 PM to: 4:00 PM
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.Instructor: Jim RitzMember Cost: $50.00, Others: $100.00
Prerequisites: Intermediate Macintosh Skills

ProductivityAppleWorks Word Processing
Thu, Jul 22, 2004, 1:00 PM to: 4:00 PM
The word processing module of AppleWorks contains many powerful features. Learn how to format documents, make lists and outlines, add pictures, use the spell checker and thesaurus, set up tabs, and make templates. This course is offered as one three hour session.Instructor: Jim RitzMember Cost: $50.00, Others: $100.00
Prerequisites: Intermediate Macintosh Skills
■

Classifieds

Classified advertisements can be placed by mailing copy to the business office of Washington Apple Pi, Ltd., 12022 Parklawn Drive, Rockville, MD 20852. Be sure to include your WAP membership number and indicate area codes with your phone numbers. Ads must be received by the ad copy due date listed in the calendar page for that month in order to be included in the appropriate issue. Any ads postmarked after that time will be included at the discretion of the editor. Cost is $2.00/line (40 characters per line), maximum 12 lines. Members of Washington Apple Pi, Ltd., may place ads up to three lines at no charge. The editor reserves the right to refuse any ads deemed inappropriate.

For Sale

—Final Cut Express (original in box), $150 OBO, 15" Apple Studio CRT Display, $50 OBO, Lynn Trusal 301 972 6137.

—Computers on Demand
Used Macs, Powerbooks & Peripherals. We Buy, Sell, Trade, Repair & Upgrade all Mac Equipment. Call for Quotes. All Major Credit Cards Accepted (301) 718-0822

—AppleWorks Users Group Discount: WAP members receive a $5 a year discount on their AWUG (AppleWorks Users Group) membership and renewals as a benefit of their WAP membership. WAP members must identify themselves as such and then deduct $5 from their $39.95 AWUG membership dues when they join or renew. Contact the AppleWorks Users Group at Box 701010, Plymouth, Michigan 48170; (888) 781-AWUG; Fax: (734) 454-1965; email: <membership@awug.org> or website <www.awug.org>.

Services

—Mac Hardware, software, networks & training. Apple factory trained & A+ Certified. Marchetti Associates. LLC. 301-404-2210 or phil@marchettiassociates.com

—Macintosh House Calls—Upgrades, Repairs, Maintenance, Tutoring. Contact John Barnes at 301-652-0667 or jdbscience@mac.com. Discount for Pi members.

—Mac Tutoring and troubleshooting help. Washington DC area. $50/hour. Phil Shapiro. Contact pshapiro@his.com

Law Office of
Richard S. Sternberg
A General Practice of Law
since 1984
General Civil & Criminal Litigation
Employment, Labor & Civil Rights
Personal Injury & Auto Accidents
Business and Corporate Practice
Domestic Relations
Wills & Probate
Admitted DC, MD, VA &
Fed. Courts
First consultation free and discount rates with valid Pi membership
(202) 530-0100 ■

12022 Parklawn Drive
Rockville, MD 20852
www.wap.org
(301) 984-0300

Membership Application

☐ New Member or Family

☐ Renewal

Name _____ **Company** _____

Address _____

City _____ **State** _____ **Zip** _____

Home phone _____ **Cell/other phone** _____

Email _____ **Add'l email** _____

What do you use?

- ☐ G5
- ☐ G4/G3
- ☐ PowerMac/Classic Mac
- ☐ iMac.eMac
- ☐ DSL or Cable Modem
- ☐ OS X
- ☐ Home Network

WAP has Special Interest Groups (SIGs), please check if you'd like to know more about:

- ☐ iLife (includes iTunes, iMovie, iDVD, iPhoto and GarageBand)
- ☐ Power Users
- ☐ Retired
- ☐ Teen
- ☐ Graphic Arts
- ☐ Programming

Fees

Basic Membership — includes Journal, one email account and web access to TCS (please note if you live outside the US, contact us for postage charge to your location— office@wap.org)	**$49**	$ 49
Additional email account (per year)	**$20**	$_____
Student rate (must fax or enclose copy of current Student ID)	**$42**	$_____
Explorer Internet Service (per year)	**$96**	$_____
Current Pi Fillings Monthly CD	**$10**	$_____

TOTAL ENCLOSED

$_____

Payment Options

☐ Check/Money Order Enclosed ☐ Credit Card (Visa/Mastercard ONLY)

Card Number:_____ Expiration Date: _____

Signature _____ **Date** _____

Heller Information Services

High speed, high reliability internet services
(founded 1987)

High speed T1 services for businesses, associations, and government

- Full, unshared internet bandwidth
- Far more reliable than DSL
- 24/7 monitoring and repair service
- Full bandwidth reports updated every 5 minutes
- Combine multiple T1s to increase bandwidth and reliability

HIS T1s provide unrestricted use of bandwidth – 1.5 megabits in each direction (to and from the internet), and connect directly to our backbone facility collocated with AT&T in Washington, DC for high reliability and low latency to all parts of the internet. Circuits are monitored continuously, 24/7, to respond immediately at the first sign of trouble. T1 circuits rarely go down, and when they do, mean time to repair is 4 hours (vs. 24 hours for DSL). We provide as much IP space as you need, as well as DNS services for your domains. HIS T1s are suitable for organizations running their own web, FTP or other servers, and will not bog down under heavy load the way a DSL connection can. Contact HIS at 301-255-0500, option 1, or sales@his.com, for a price and installation date quote (you'll be surprised how low the cost is).

Outsourced email services

- POP3, IMAP and webmail access
- SSL for secure mail pickup
- 24/7 monitoring
- Phone and email support
- Gigantic mailboxes: 30 megabytes standard (75 megabyte Superboxes available)
- Postini virus and spam filtering

Many businesses and trade associations have outsourced their email operation to HIS for convenience, cost savings, support, reliability, and for spam and virus filtering. Contact HIS at 301-255-0500, option 1, or sales@his.com, for more information.