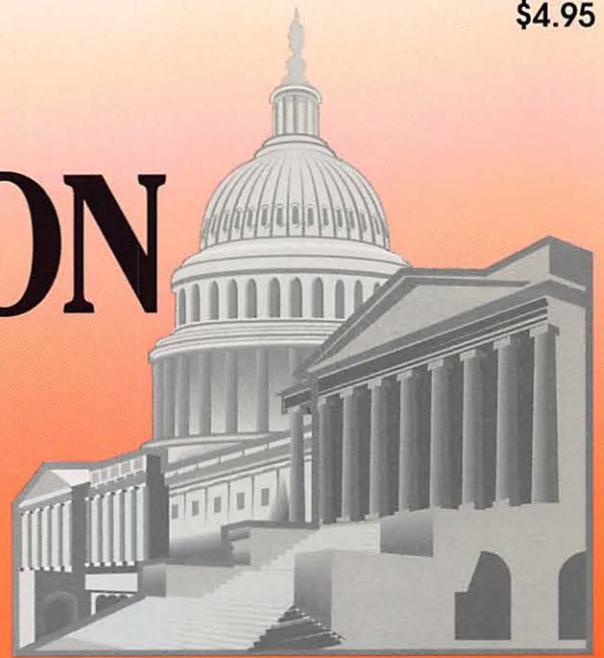


WASHINGTON APPLE PI



Volume 26, Number 5

President's Corner—5

The Pi Holds a Picnic—13

July General Meeting, Digital
Photography—17

E-mail: Keep it Simple—25

Restoring Sight to a Blind Mac—28

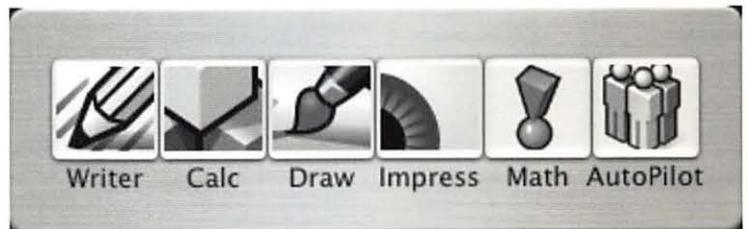
Introduction to
OpenOffice.org—32

iView Media Pro in View—41

Case Study of a Flash Site—48

Broadband at Sea—53

The Apple /// SIG and WAP—71



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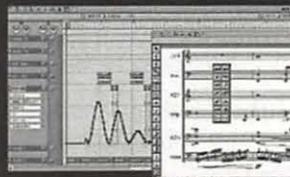
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Table of Contents

Volume 26

September / October 2004

Number 5

Club News	
Index to Advertisers	60
Meeting Notices	63
Special Offers	77
Tutorials	83
Classified Advertisements	87
WAP Membership Form	88
General Interest	
From the VP for Volunteer Services	4
by Cheryl Lavoie	
President's Corner	5
by John Barnes	
May Board of Directors Meeting .	7
April iLife SIG Meeting notes	8
by Hal Cauthen	
May iLife SIG Meeting notes	9
by Hal Cauthen	
June General Meeting Show Picnic	12
by Lawrence I. Charters	
The Pi holds a Picnic	13
by Richard A. "Dick" Rucker	
Washington Apple Pi Outstanding Volunteer Awards 2004	15
by Steve Roberson	
July General Meeting	17
by John Barnes	
Pi Fillings, the CD, the June/July version (digital photography) .	20
Impressions of MacWorld Boston	21
by John Barnes	
E-mail: Keep It Simple	25
by Lawrence I. Charters	
Restoring Sight to a Blind iMac .	28
by Lorin Evans	
Introduction to OpenOffice.org .	32
by Doug Brown	
X Resource Graph: Because It Looks Cool	38
by Lawrence I. Charters	
A Quick Look at Quicksilver	40
by Mike Mellor	

iView Media Pro in View—Added Tools and Power Highlight 2.5 Upgrade	41
by Dennis R. Dimick	
"The Computer ate my Ballot"—Experiences of an Electronic Voting Machine Technician	44
by John Barnes	
Case Study of a Flash Site	48
by Sheri German	
Broadband at Sea	53
by John Barnes	
BTCS: Recent Apple Security Enhancement	56
edited by Richard "Dick" Rucker	
BTCS: Report on Another Hard Disk Repair Utility	59
edited by Richard "Dick" Rucker	
Using the Calculator in Mac OS X and How to Add its Hidden Powers	60
by Pat Fauquet	
The Apple II and /// CFFA Project	64
by Richard Dreher	
The Apple /// SIG and Washington Apple Pi (2004)	71
by David Ottalini	
Saving the Unsavable	75
by Chris Hart	

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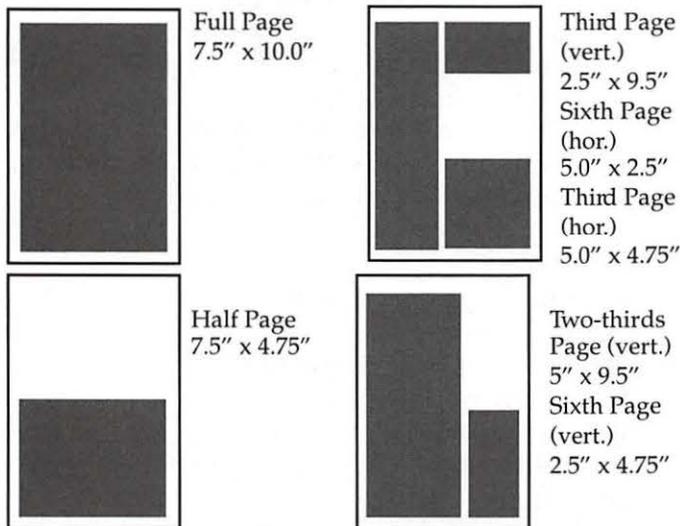
Washington Apple Pi

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.

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Advertising in the Journal (available sizes)



No. of times ad runs	1	2-3	4-5	6+
Full Page	\$450	\$383	\$338	\$270
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Half Page	\$300	\$255	\$225	\$180
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Sixth Page	\$125	\$106	\$93	\$75

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

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The 2004 Pi Picnic was a time to exchange information. (Photo taken by Bob Mulligan with an Olympus E-20 digital camera.)

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When weather is bad, call to check if office is open.

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From the VP for Volunteer Services

by Cheryl Lavoie

MY NAME IS Cheryl Lavoie and I am the Pi's Vice President for Volunteer Services. Since early 2003, I have been volunteering regularly in the Pi Front Office, where I help to mail out your membership renewals and to enter data from new member and renewal forms. During my time at the Pi Office, I've noticed that there is too much to do for too few volunteers. Did you know that your Mac User Group has no hired help, not even an office manager? However, we do pay a graphic designer to lay out the *Journal* for you.



Volunteers...

- Write and take pictures for the *Journal*
- Edit the *Journal*
- Run Special Interest groups
- Plan general meetings
- Organize a huge garage sale
- Operate all the equipment of the Telecommunications System
- Write programs for all of our electronic communications services
- Write programs for Pi databases
- Faithfully work on your hardware and software issues every single Tuesday evening
- Answer the telephone to help you solve problems

And the list goes on, but there are lots of smaller jobs that wouldn't take much of your time. Whatever your talents or druthers please let us know and we shall find your niche. Many of the tasks can be done on your own schedule from the comfort of your own home.

I'm having a great time and I look forward to each Friday of the week when I can be with other Pi volunteers. How about you? Any time to spare, perhaps an hour or two a month? Please call the office on Fridays 301 984-0300, or e-mail me at vpvolunteers@wap.org.

Thank You. ■

President's Corner

by John D. Barnes

Membership Growth and Retention

BY THE TIME you see this you should have encountered some of our new membership growth and retention initiatives. The first of these is a new one-sheet application and brochure for new members. The second is our "No Member Left Behind" campaign.

The last time we had a simple, convenient piece of paperwork was at least four years ago. This was a valuable tool because it could be easily displayed in a great variety of settings. Retail outlets, schools, libraries, recreation centers, etc. The brochures will be available at all General meetings, at the Pi Office, or by phone order. Pick up a bunch the next time you get the chance and help us carpet-bomb the entire area!

The "No Member Left Behind" campaign entails contacting persons whose Pi memberships have lapsed, in order to determine whether this was inadvertent, whether our offerings fell short, or whether other personal reasons are in play. Each month we seem to lose about 20 members, some of them only temporarily. Retaining a couple of extra members each month could make a difference in our bottom line. Besides, we may

uncover some issues that have been bothering members who do not know what to do about them.

Publishing the Pi Journal

The production staff of the *Pi Journal* is in the midst of a transition to new software and hardware. The Adobe Creative Suite is one driving force behind this. Adobe's transition to Mac OS X has led to a much tighter integration of their desktop publishing products. Evolution in technology at the printing press has been another driving force. Nowadays it is fashionable to provide print-ready PDF files that take one from disk to press in one easy step. This implies the existence of a highly standardized software environment and a rigorously defined automated proofing process known as "preflight."

Our hope is that the *Journal* production team can take full advantage of these tools to supply our readers with professional-looking magazines delivered in a timely manner. Once we learn how these standards operate we can expect to see much more effective collaboration between submitters and editorial staff. Of course the old bugaboo of people who submit their material late remains a barrier to that :).

This affects those of you who want to write for the *Journal* because it means that you should get your material in as soon as possible. Deadline dates are no longer some sort of vague, shifting window to the future. There is a very real risk that material submitted after the deadlines will experience delays in publication.



System software & updates Questions & Answers Vendor Patches & Updates Macintosh Knowledge Publicly distributed Software Information Apple II, III Announcements PowerPC Advice & Hints Newton Bad puns Hot Tips Usernet Juicy Rumors Washington Apple Pi Events Calendar Special Offers & Announcements Macintosh Knowledge Publicly distributed software Announcements PowerPC Camaraderie Advice & Hints Hot Tips Juicy Rumors Washington Apple Pi Events Calendar Want Ads Vendor Demos & Special Offers System software & updates Questions & Answers Vendor Patches & Updates Macintosh Knowledge Publicly distributed Software Information Apple II, III Announcements PowerPC Camaraderie Advice & Hints Newton Bad puns Hot Tips Usernet Newsgroups Repartee Help Juicy Rumors Washington Apple Pi Events Calendar Want Ads Vendor Demos & Special Offers System software & updates

Tele-Communications System

Washington Apple Pi's "24-hour General Meeting"

<http://tcs.wap.org>

Open to all Pi members

And view your mail over the Web at <http://mail.wap.org>

As an aside here, I will mention that we handed out 200 copies of the *Journal* at MacWorld Boston. A common reaction among the people who picked them up was amazement that an Apple User Group run almost entirely by volunteers would even take the trouble to put together such a publication. The *Pi Journal* is a Crown Jewel and we must work to keep it that way.

Budgeting

For many years the Pi's accounting system has been structured as something only a green eyeshade person could love. Accrual accounting and double entry bookkeeping are arcane arts that require a lot of learning. Unfortunately the income and expense "accounts" that such systems use do not relate very well to our programmatic needs. Furthermore, the hardware and software that our bookkeeper has been using is poorly suited to current needs.

Dick Rucker, our treasurer, is working with Anne van de Meulebroecke, our bookkeeper, to upgrade and improve the system so that we will be better able to track cash flows and monitor our financial state.

Volunteer Employment Opportunities

I would like to reinforce what Cheryl Lavoie, our VP for Volunteer Services, had to say in her piece elsewhere in the *Journal*. The fellowship of other people who share our common interests in computing is one of the truly unique things that a User Group offers. This spirit is taking hold in a small way at the Pi and we need to nourish it.

Our picnic on June 19th was one of the first manifestations and the members who were present got very different views of one another than the ones they had been getting at meetings, the Tuesday Clinic, and other places. This is definitely on next year's calendar.

In the meantime we have a lot of openings for people who want to express themselves in a wide variety of ways. Both the iLife SIG and the Graphic Arts SIG are looking to replace departing chairs. These jobs do not require experts in the respective

areas. It is sufficient that the leaders recognize talent when they see it and that they recruit presenters who can keep the SIG members engaged.

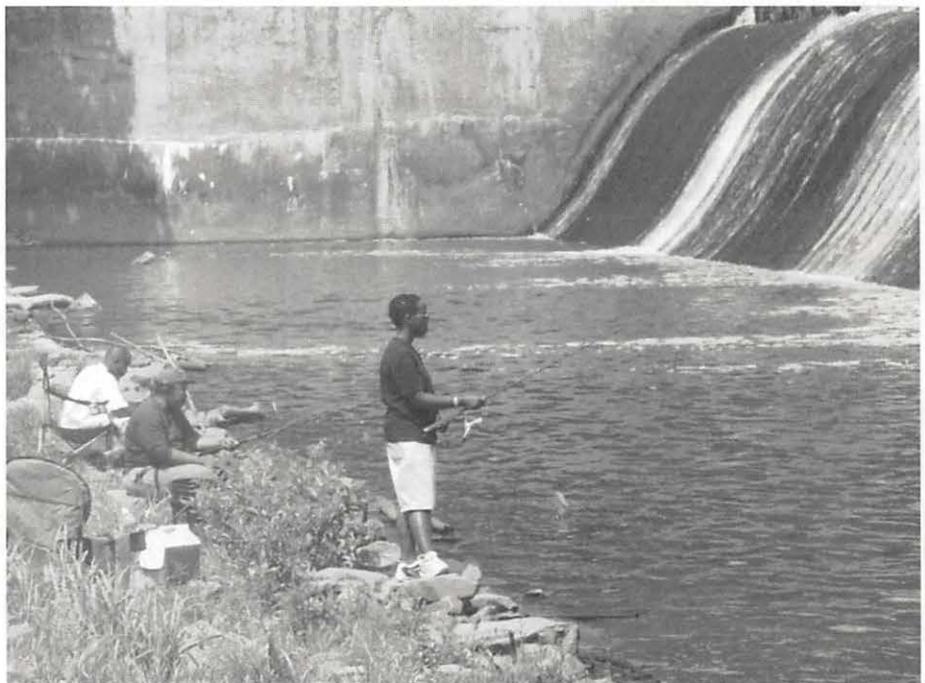
At the other end of the spectrum we need people who can answer the phones at the front desk and dispense simple forms of help and advice. The "No Member Left Behind" program also needs people who can do a few telephone contacts each month. Only minimal orientation is required to work in these areas and some of the work can be done from the comfort of one's own home.

Your Suggestions

Last, but not least, we need your suggestions. Send a note to vpprograms@wap.org if you know of an engaging presenter with a good story or a topic that can hold members' interest. If our tutorial offerings do not work for you send a message to tutorials@wap.org. If your correspondence with anyone fails to get an answer send an email to me at president@wap.org or phone me at the number listed in the *Journal*.

Don't forget to use the message boards on the Pi forums at <http://tcs.wap.org/> if you want to start a dialog on any topic.

Thanks for listening and best wishes
John D. Barnes, President, Washington Apple Pi.



Pi Picnic: While Pi members played with Macs and a Segway, others found alternative methods of leisure at Lake Accotink Park. (Photo by Lawrence I. Charters, taken with a Minolta DiMAGE A2 digital camera.)

May Board of Directors Meeting

MAY 20, 2004 Board meeting called to order at 7:36pm by president Pat Fauquet

Present were:

John Barnes
Abe Brody
David Harris
Pat Fauquet
Jon Thomason
Herb Block
Dick Sanderson
Craig Contardi
Steve Roberson
Dick Rucker

Jim and Nancy Little arrived shortly after 8pm.

Minutes from the April board meeting passed as written, with one clarification (Ottalini CD)

Treasurer: YTD still positive. Starting with the next Pi FY (June 1, 2004), the treasurer will use the existing software to put our budget entries on the same sheet as the income statement. Depreciation remains a puzzling entry on a budget.

Pat stressed again the need for a membership drive.

Dick Rucker asked about, and was told, the nature of the multiple accounts shown on the Treasurer's Report.

Office Staff: Herb Block said they were "limping along", partly due to printer problems. Further discussion revealed that the problems are sporadic. The suggestion was to use one of the other printers on the office network, even if it means unlocking doors. Jon Thomason offered to reconfigure the network to determine

if a flaky network switch might be to blame.

Election committee: as of today (5/20), we have 114 ballots cast. There have been just two requests for paper ballots.

Facilities: SIGs that meet in the Pi Office are reminded to clean up after themselves.

Fillings: Hopefully will be ready for the next meeting.

Budget: Jim Little repeated that we need to see what the financial software is capable of doing with balance sheets. He asked if we want to break out income any differently. He is fearful of the idea of raising dues. John Barnes feels it would have to be a significant increase (\$75) and that could drive a lot of members away completely.

Volunteers: A public recognition ceremony is forthcoming as part of the June picnic. Pat mentioned that other volunteer organizations use logbooks and give awards based on hours donated. The board agreed to fund \$75 for certificates and the like. Volunteers are needed for the picnic (grilling, cleaning, etc.)

Store Reps: John Barnes and Dick Rucker have done a yeoman's job in getting Journals distributed.



Pi Picnic: Almost hidden in the trees, this pavilion (uphill behind the white building) was the Pi's headquarters at Lake Accotink Park during the 2004 Washington Apple Pi Summer Picnic. (Photo by Lawrence I. Charters, taken with a Minolta DiMAGE A2 digital camera.)

SIGs/Slices: TeenSIG has two members; John Barnes will work with Kathryn Murray to purge the Slice references from the masthead (as slices are no longer part of the bylaws). Riderwood SIG is not going anywhere.

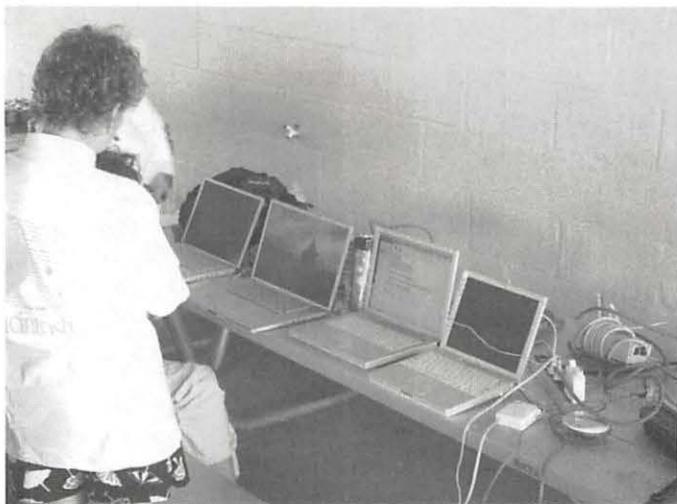
Programs: June is Picnic, July is digital photos with Penn Camera as corporate partner, August is Applescript, September is music. John Barnes wants input from membership and board members for October and beyond meeting topics.

TCS: Lou sent in a report in his absence.

Tutorials: Nancy is on, Pat is off July & August.

New Business: Pat Fauquet spelled out the necessary steps for the Pi certifying under the Apple Consultants Network. \$2200.00 initially (\$1500 for course, \$200 for test) and \$500.00 each year thereafter (ACN dues) would enable us to conduct application seminars at our expo. Pat said that there will be no problem getting vendors to pay to participate in an expo.

The meeting was adjourned at 9:12pm. ■



Pi Picnic: Wireless networking, iSight video, iChat chatting and other Macintosh technologies were on display at the 2004 Washington Apple Pi Summer Picnic. (Photo by Lawrence I. Charters, taken with a Minolta DiMAGE A2 digital camera.)

April 2004 iLife SIG Meeting Notes

by Hal Cauthen

WHAT A TERRIFIC meeting! Perhaps the best ever. Certainly the best attended. I lost count after thirty-something...

And what a nice setting the Microcenter provided!

We met Saturday, April 17, in the Conference Room at the Microcenter, in Fairfax. Our thanks go to Bob Lewis, a Microcenter manager, who did a great job getting the room set up for us. With tables and chairs, we could sit in groups, which made interaction easy. Also provided was a projector, and because we had control of the lights we could view the demos under optimal conditions.

This meeting was one of the best, thanks not only to Microcenter but to our own three Bob's — Manka, Mulligan, and Rhodes! Their presentations were excellent.

Bob Manka brought his Nikon LS-4000ED scanner in order to discuss some basic scanning techniques. Given the short time available, no actual slide scanning was done (that may be a future topic) but a few examples were shown. This type of scanner is a high-end film scanner for slides and negatives. From a 35 mm slide or negative, it produces scans in 8 or 14 bit color and 4000 dpi resolution, with resulting files up to 100 MB. The final scans are approximately 15 megapixels, but due to film grain perhaps more equivalent to a 8-10 megapixel digital camera.

Bob explained that he had spent several months recently working on understanding how to get correct colors from a scanner, and how to use a standard calibration target slide (Q60 or it8) in order to control the color workflow. In particular, calibration helps to give the proper color balance for a scanned image and take out the individual characteristics of a particular scanner. The objective is to produce a scan that when viewed on a calibrated monitor (in this case Apple 23" HD Cinema Display) gives colors like that of the original slide.

From these high-quality scans, he said, one can import the scan into Photoshop for viewing and final adjustments before printing.

If one has slides or negatives that are really important, then it can be something of a work of art to care-

fully scan a high-resolution image and adjust the color balance in order to bring out the best from the original film. This is one way to recapture those special scenes, archive them for the future, and then produce copies on large prints or DVD's. The quality of the image can exceed almost anything that is commercially produced, except from very high-end drum scanners.

Bob's introduction to high end scanning was well received, and stimulated considerable discussion.

Next, we showed a brief iMovie created by Bob Mulligan from one slide. Bob told us that, personally, he thought that the Ken Burns Civil War series on PBS a few years ago was the most creative television he'd ever seen so he wanted to try out the technique using iMovie. One of his creations, which he shared, he called Jump!

In Jump! he only used one image, and from it made a one minute iMovie that lovingly pans, zooms, and moves across the image to tell the story of some boys jumping from a bridge into a lake. (Jump into the lake? Methinks there is a joke in there somewhere.) Bob said, "Ken Burns iMovie suggested itself when I reviewed a digital picture I shot when sailing with friends on a lake in Tennessee. There was a lot going on in that one frame so, using the Ken Burns mode again, I panned up, across, down and then zoomed out. It told the story of country boys making a daring leap off a bridge."

Bob spent half his photographic career shooting news and half as a commercial shooter. He's seen some photo work on the Internet, showing what today's digital photographers are doing and thinks them amazing. Most, he says, are made using Macs, what else! You can see Bob's iMovie on the iLife SIG page:

<http://www.wap.org/imovie/>

Bob Rhodes, Colonel, USA (Ret.) shared with us an 8-minute version of his hour long tribute to the men who fought in the Korean War, particularly the Belgium and U. S contingents. Working against a deadline, he finished the "final" version just hours before he had to show it to an audience that included the Ambassador at the Belgium Embassy. Truly a labor of love, Bob worked on this project for over a year, learning as he went along how to organize the material, how to select and order the images, and how to match the music for maximum effect. Bob most graciously credited many of our members for the support he received on the project.

We concluded with a presentation by the Microcenter's Reggie Brown: he gave us an excellent "show and tell" about the features of two different digital cameras and color printers. ■

May 2004 iLife Meeting Notes

by Hal Cauthen

THE MAY, 2004, WAP iLife SIG meeting was held at Mac Business Solutions, in Gaithersburg. The subject of the meeting was the video-conferencing capabilities of iChat AV. Phil Shapiro and Justin Swain co-led the meeting.

By pre-arrangement, several local and one long-distance person video-conferenced with us via Apple's



May 2004 iLife meeting: John Barnes views the proceeding (note the image on the iBook screen in the foreground) via an iChat AV connection. (Photo by Hal Cauthen, taken with a Premier DC3320 digital camera)

iChat AV during the meeting. Thanks to the quality of the software, the people with who we video-conferenced appeared clearly projected on the wall at the front of the meeting room, and sounded as if they were in the room with us. Sonny Tohan, our gracious host at Mac Business Solutions, provided an iSight camera with a SightLight, from Griffin Technologies. Griffin Technologies describes the \$40 SightLight this way: "The Griffin SightLight slips right over the iSight, shares its FireWire cable connection and adds a warm glow of light that improves your onscreen iChat appearance." Our experience using the SightLight was favorable.

We used the iSight/SightLight combination on Jus-

tin Swain's PowerBook. To add an element of fun to the meeting, we also experimented with capturing the videoconference sessions to QuickTime, using Snapz Pro X 2, from Ambrosia Software.

Richard (Rich) Jaeggi video-conferenced with us from his home in Silver Spring, Maryland. He explained how WashingtonApple Pi helped him with the youth technology outreach work he has been doing in DC. Rich is one of the co-founders of the annual TechnoRodeo youth technology event that takes place in the Shaw neighborhood each year. (<http://www.technorodeo.com>) Rich can be reached at rjaeggi@bigacorn.com.

We then iChatted with John Barnes and local musician Gavin Saint McCleod, whose music is now available from the iTunes Music Store. We next videoconferenced with John Benson, a local middle school student with an expertise at Final Cut Pro. John

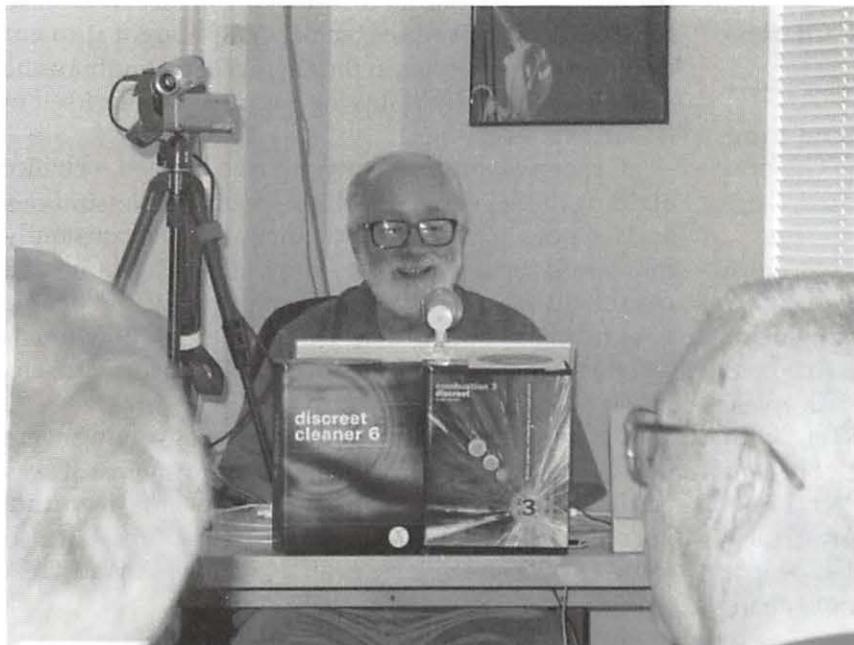
"Sonny Tohan, our gracious host at Mac Business Solutions, provided an iSight camera with a SightLight, from Griffin Technologies. Griffin Technologies describes the \$40 SightLight..."



May 2004 iLife meeting: Phil Shapiro (lower right) leads the iChat AV discussion. (Photo by Hal Cauthen, taken with a Premier DC3320 digital camera)

explained about his experiences with blue screen techniques and split screen video.

We also iChatted with August Trometer (pronounced "trahmeter"), from Indianapolis, who is the creator of the dotmac.info Web site (<http://dotmac.info>). August explained about the origins of



May 2004 iLife meeting: Justain Swain assists Phil Shapiro in discussing iChat AV. (Photo by Hal Cauthen, taken with a Premier DC3320 digital camera)



May 2004 iLife meeting: Mac Business Solutions, hosts of the May iLife meeting. (Photo by Hal Cauthen, taken with a Premier DC3320 digital camera)

"At the end of the meeting, Mac guru Jason Morenz explained some of the interesting features of QuickTime Pro that allow you to lighten or darken (or otherwise improve) video that you're saving to a QuickTime file."

dotmac.info and he shared with us some of the interesting stories connected with that Web site which allows anyone with a dotmac account to share their creations with the public.

After we had success capturing a videoconference session to QuickTime, Joe Maris asked what the file size of the QuickTime was. It turns out that with the audio compression we used (IMA 4:1), the file size of captured QuickTimes (200 x 150 pixels) is about 3 megabytes per minute.

At the end of the meeting, Mac guru Jason Morenz explained some of the interesting features of QuickTime Pro that allow you to lighten or darken (or otherwise improve) video that you're saving to a QuickTime file. Jason also showed his Nokia cell phone that can play as much as 2 hours of video, compressed with QuickTime Pro. Sounds like a great opportunity to ask someone out on date? "Would you like to go out to see a movie? I've got a great movie sitting here on my cell phone."

Don Fortnum, who drove down from the Gettysburg area, was the winner of the door prize, the book *iChat AV 2 for Mac OS X: Visual QuickStart Guide* by Jeff Carlson.

Further info about upcoming iLife SIG Meetings and the iLife SIG email list can be found at:

<http://www.wap.org/imovie/>

June General Meeting Show Picnic

by Lawrence I. Charters

IN A BREAK with tradition, there was no June Garage Sale in 2004. Nor was there a June General Meeting. Instead there was the long-discussed, long-rumored, long-debated Washington Apple Pi Picnic.

Held June 19 at Lake Accotink Park in Northern Virginia, the picnic had a storied journey to fruition. Former Board member Grace Gallagher lobbied for more than a decade for an annual Pi picnic. She contended that Pi members were much like butterflies: yes, they might spend most of their time interacting with one another in socially inept but technically brilliant ways, but underneath this outer cocoon they were beautiful creatures, just waiting for the chance to spread their wings and fly. Another of her fantasies was that people had more sense than to use Windows, and would abandon it for Macs after the Y2K debacle.

Unlike her Windows fantasy, the Pi Picnic did come into being on the shores of Lake Accotink, a surprisingly rural park that is shockingly close to the Capitol Beltway. Watching people fish, ducks and geese swim, and children throw rocks at one another, you'd be hard pressed to imagine that tens of thousands of motorists were engaged in life-and-death auto racing less than a mile away.

As predicted, it turned out to be a portable digital feast. In addition to the usual hamburgers, hot dogs, potato salad, beans, chips and garnishes, there were also iBooks, PowerBooks, and a variety of digital cameras. Picnic goers could discuss the merits of this most traditional of American meals and show off snapshots of last summer's vacation with iPhoto. As luck would have it, the various Mac laptops were in a variety of sizes, so it was easy to compare the drive in theater-style screen on a 17" aluminum PowerBook G4 and the jewel-like compactness of the 12" iBook and PowerBooks.

Phil Shapiro brought an iSight camera, and tried hard to recruit some adventurous soul to go canoeing and, using two canoes, two iSights, and two iBooks, hold the first canoe-borne video iChat session. Everyone congratulated Phil on his imagination, while imagining what would happen to an iSight and iBook if there were a canoe iMishap.

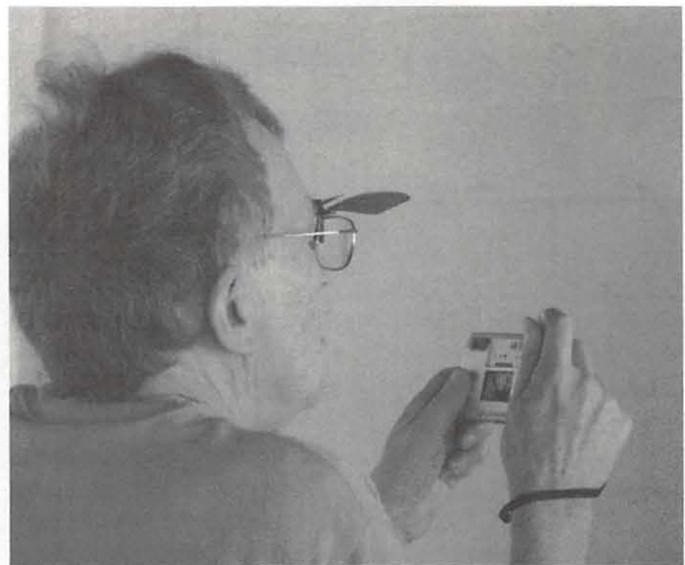
Jeff Lauterette, a computer consultant with Mid-Atlantic Consulting, brought an electronic wonder of a different kind: a Segway. Technically known as a "Segway Human Transporter," his trusty two-wheeled steed looks like an old-fashioned push lawnmower. Inside, an amazing amount of computer power, combined with multiple gyroscopes and some very efficient electric motors, turn this modest-looking device into a fast, reliable electric-powered vehicle. Jeff bought it to cut down on parking costs in the District of Columbia as he visits his clients. He states the Segway paid for itself in less than a year.

Generously offering anyone who wished a chance at riding the Segway, Jeff offered several demonstrations and, as people tried it out on their own, he constantly monitored their actions for safety. His background as a consultant was on display as he repeatedly told people how to stand, how to grip the handlebars, how to adjust their weight, how to stop, back up, go forward, etc. It was a heck of a lot of fun.

Those not eating, computing or Segwaying were busy gossiping or comparing digital cameras. It was easily one of the best documented Pi events, featuring not only many photos reproduced in the *Journal* but also some QuickTime videos, available on the Pi Web site:

<http://www.wap.org/events/june2004/>

Closing out the picnic were the 2004 Outstanding Volunteer Awards, mentioned elsewhere in the *Journal*. It was easily our most successful picnic in more than a decade... ■



Pi Picnic: David Harris uses his tiny Minolta DiMAGE X digital camera to photograph some of the action at the Washington Apple Pi Summer Picnic. (Photo by Lawrence I. Charters, taken with a Minolta DiMAGE A2 digital camera.)

The Pi holds a Picnic

by Richard A. "Dick" Rucker

THE WEATHER turned out to be quite pleasant: sunny and bright until late afternoon, mild temperatures, and a pleasant cool breeze off the lake. We had the main picnic shelter at Lake Accotink that sits on a wooded hill overlooking the lake — a beautiful view!

A highlight of the afternoon was the Segway that Jeff Lauterette rode to the event from the parking lot. Before the event was over, everyone who wanted to learn how to operate it got an opportunity. We had a nice concrete pad to motor around on, so there were no spills or close calls this afternoon. Now, I want one!

The food was excellent and plentiful, thanks to the purchases made by Jim and Nancy Little on behalf of the Pi and the pot-luck items brought by the rest of the attendees. Abe Brody said that his fruit salad was the first he'd ever made, and it was excellent. Thanks, Abe!

John Barnes cooked the hamburgers, and I cooked

the hotdogs. Steve Roberson recognized a number of Pi volunteers, and those present received a token of the Pi's appreciation.

In attendance were:

Josh [??]
Mindy [??]
Cliff Bailey
John Barnes
Abe Brody
Hal Cauthen
Lawrence Charters
Jade Curtis
David Harris
Jeff Lauterette
Cheryl Lavoie
Jim Little
Nancy Little

Don Mader
Phil Marchetti
Kimberley Mills
Bob Mulligan
Patricia Murphy
Steve Roberson
Dick Rucker
Dick Sanderson
Nancy Seferian
Phil Shapiro
Jon Thomason
Kristen Dunn-
Thomason



The 2004 Pi Picnic was a time for eating picnic foods. (Photo taken by Bob Mulligan with an Olympus E-20 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

Sept 25, 2004

Your Mac and
Your Music
In the Forum

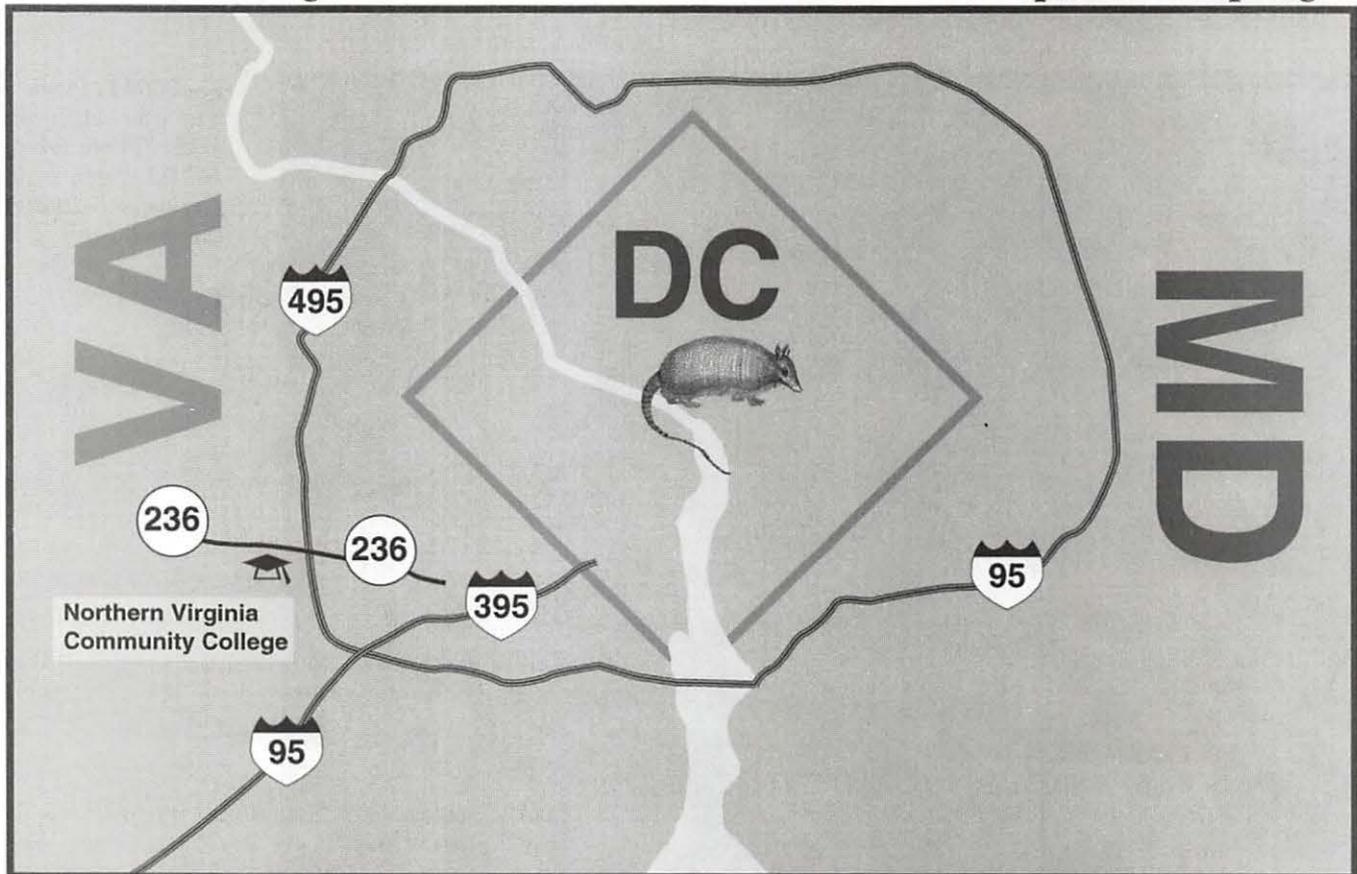
Oct. 23, 2004

TBA
In the Forum
(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/>



Washington Apple Pi Outstanding Volunteer Awards 2004

Presented at the
Pi Picnic, June 2004

by Steve Roberson, Vice President, Volunteers

All the wonderful things about Washington Apple Pi are the result of dedicated volunteers. Volunteers who write for and publish the Journal, organize general meetings, lead special interest groups, maintain and improve the TCS, take tickets at the garage sale, fix computers at the Tuesday Night Clinic, answer the phones at the office and so much more!

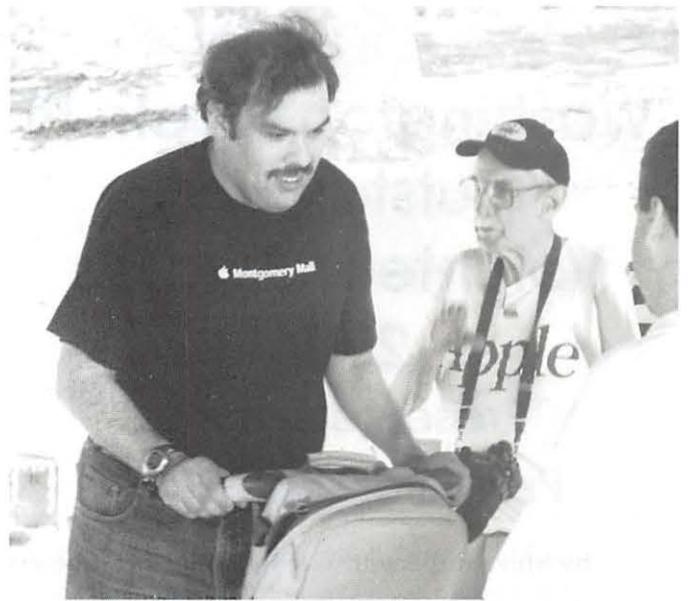
This year we publicly recognized a few of those exceptional Pi volunteers at the June Picnic. Our hope is that by honoring some of those who volunteer their time and effort on behalf of the Pi we are, in a small way, thanking all of those who aid the organization.

- Nancy Little: "for her extraordinary energy, and uncommon common sense, as both an office volunteer and a coordinator of volunteers." "She is so sharp-witted, sensible, and doesn't take guff."
- Pat Fauquet: "she is a natural born teacher, a person dedicated to helping us all grow. She has been a terrific organizer and leader in the Pi. She is creative and full of great ideas for the future of the Pi. This is just the tip of the iceberg of qualifications to nominate Pat Fauquet as Super Volunteer."
- Phil Shapiro: "Not only does Phil have a long history of unselfish service and loyalty to the Pi, in the past two years he's helped found and nurture the iMovie, now iLife SIG; he written articles for the Journal; he's given much more of his time to help new users; and he's unfailingly supportive of the Pi."
- Jon Thomason: "for his continual improvement of the TCS, his almost unnoticed transition of the Pi from a DSL to a T-1, his negotiation of the DSL to T-1 switch, and his general All Purpose Expert service and support."
- Lorin Evans: "for his efforts in recycling, donations, Tuesday Night Clinic and computer archeology. Lorin is also the first former President of Washington Apple Pi to retain an active role in the club after retiring from the job; here is hoping he will not be the last."
- Lou Dunham: "for his chairmanship of the TCS committee. He is retiring for health reasons, but his calm, mature, adult leadership of the adolescents on the TCS committee and his ability to run interference with the Board and other external entities has been crucial to the success of the Pi's telecommunications over the past few years."
- Paige Counts: "The way in which she responds to challenges and the quality of the products that she makes are both truly outstanding examples of volunteerism at its best."
- Hal Cauthen: "Hal Cauthen loves explaining computer things to people. and he loves to see other people lending each other assistance with computers. His greatest talent, though, is the artistry he brings to his creative work. He helps remind WAP members that it's not the computers that matter, but the joy of the process and the beauty of the end product."
- Jim Ritz: "for his tireless efforts coordinating tutorials, office volunteers, the Hotline, and all the other essential tasks that everyone else forgets."
- Sheri German: "for the countless hours she spent coming up with the wonderful redesign of the



Washington Apple Pi Web site (transporting us from HTML 3.2 to CSS-2 and XHTML in one step) and her contributions to the Washington Apple Pi Journal and Power User SIG."

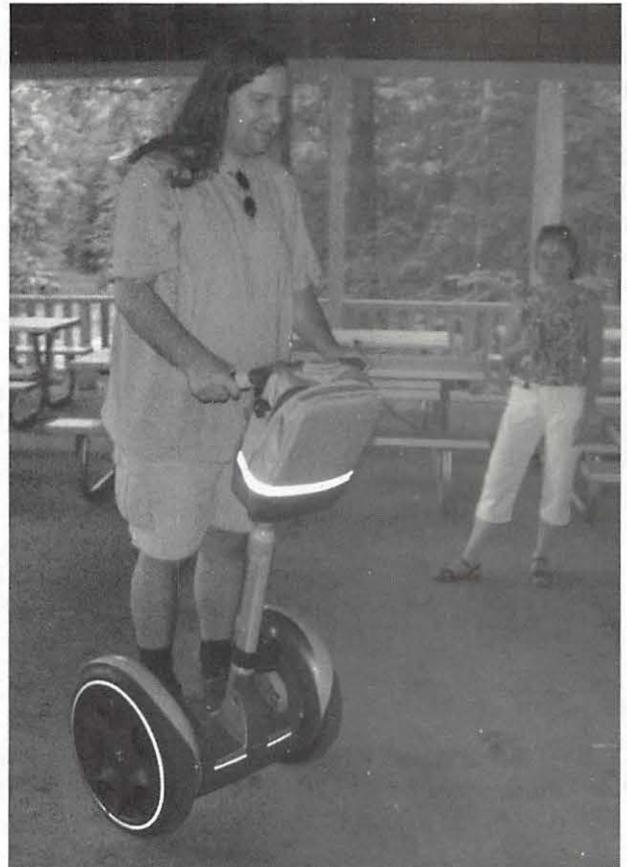
- Dick Sanderson: "for his administrative work at the Pi office and unofficial, but dedicated, role as the Pi's photographer."
- Cheryl Levoie: Great office crew.
- Catherine Diebold: Great office crew.
- Bill Diffley: Great office crew. These three individuals have gone to great lengths to make sure that our members think of the Pi office as their office, and not some remote, unknown bureaucracy. ■



Pi Picnic: Abe Brody looks like he is zipping by at high speed on a Segway at the 2004 Washington Apple Pi Summer Picnic. (Photo by Lawrence I. Charters, taken with a Minolta DiMAGE A2 digital camera.)



Pi Picnic: Kimberly Mills tries out Jeff Lauterette's Segway at the 2004 Washington Apple Pi Summer Picnic. (Photo by Lawrence I. Charters, taken with a Minolta DiMAGE A2 digital camera.)



Pi Picnic: As storm clouds gather outside, Jon Thomason tries out a Segway at the 2004 Washington Apple Pi Summer Picnic. (Photo by Lawrence I. Charters, taken with a Minolta DiMAGE A2 digital camera.)

July General Meeting

by John D. Barnes, WAP President

A LARGE CROWD of at least 135 members and guests crowded into the Cultural Center Forum at Northern Virginia Community College on July 31, 2004 to participate in a lively presentation on digital photography. The presenter was Chris Butcher, a project manager for Penn Camera at their headquarters in Beltsville, Maryland. Interest in Apple products for digital photography is such that Penn Camera has recently become an Apple reseller.

Camera Q & A

Chris laid out an array of cameras ranging from a shirt-pocket point and shoot model to two Single Lens Reflex models with interchangeable lenses. Rather than making a formal presentation cataloguing features of various models, Chris encouraged audience questions from the outset and the audience responded enthusiastically. A number of the more experienced photographers on hand could not resist the temptation to interject the occasional editorial comment or operational hint. This is par for the course when a number of photographers gather in one place.

One of the first issues raised was "Why is there a delay before the scene is recorded?" It turns out that most digital cameras require that the CCD chip (used for capturing the image) be reinitialized after the image has been used for focusing and exposure metering. Some modern cameras ameliorate this problem by allowing the user to shoot a sequence of shots, up to as many as 8 per second, and buffering the data into RAM while writing to the removable memory card. It should be noted that a delay is present on even classic film cameras; it is just not so noticeable, amounting to perhaps 30 ms while the mirror flips out of the way on an SLR, for example. The delay on low-end digital cameras is long enough that a well-trained trigger finger is needed when shooting rapid sports action.

Digital Zoom

When asked about "digital zoom," Chris gave a very clear explanation of this "feature" on many cameras, offering his view that you should not use it unless you are willing to suffer the image degradation that results from using mathematics to make a small number of pixels mimic a larger number. Although the feature is basically useless, it makes for good advertising copy by camera manufacturers. It was noted that the price of cameras scales upward with increasing optical – not digital – zoom. Optical zoom capability is a function of the arrangement of lens elements and the mechanical components needed to arrange them to vary the telephoto effect.

File Formats

Chris discussed RAW and JPEG image formats, although he did not go into much depth on this subject. RAW images, as the name implies, contain all of the information that the camera can possibly record. Some professional photographers prefer them for this reason, although their large size causes them to eat up storage space. Since they con-



The July General Meeting on digital photography attracted an overflow crowd. Even before the meeting began, seats were scarce. (Photo by Lawrence I. Charters, taken with a Minolta A2 digital camera.)

tain all of the information the camera can capture, RAW images are the best starting point for correcting things like color imbalance or lens distortions.

A question about shooting Black and White images brought the response that this is accomplished with mathematics in the camera and that the image sensor is still seeing the same patterns of reds, greens and blues. I inferred from Chris's response that it might be better to capture the images in color and do the conversion to grayscale images after the fact.

Creative Use of Photoshop Elements

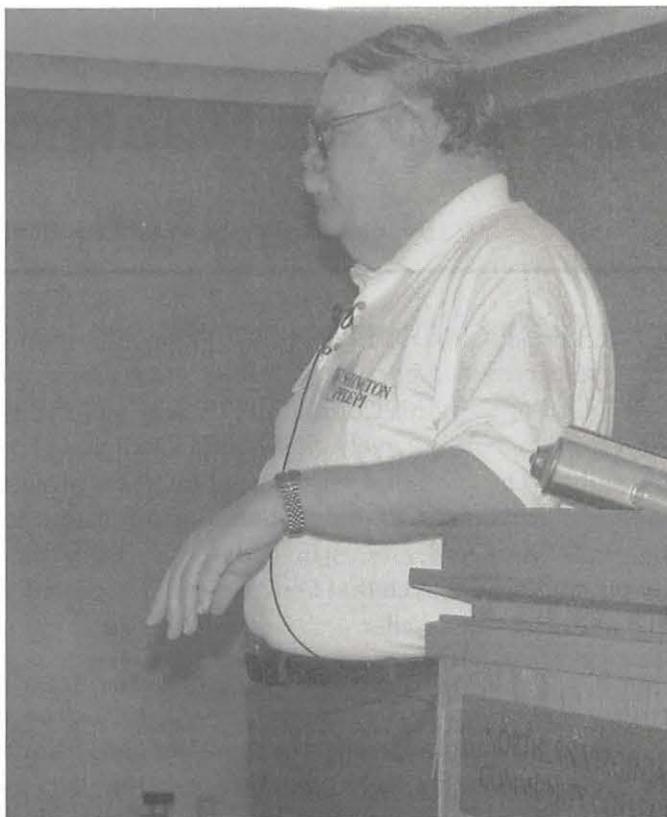
Chris went on to demonstrate Adobe's *Photoshop Elements 2* software. He had taken a panoramic series of several shots of the Forum and audience prior to the start of his presentation. He then showed how *Photoshop Elements* could stitch these images together into a convincing panoramic image.

This brought up the point that the red, green, and blue pixels on image sensors do not necessarily see the same image details because they are displaced from one another. Chris also used the cloning tool to demonstrate how *Elements* could be used to doctor images to remove distracting items.

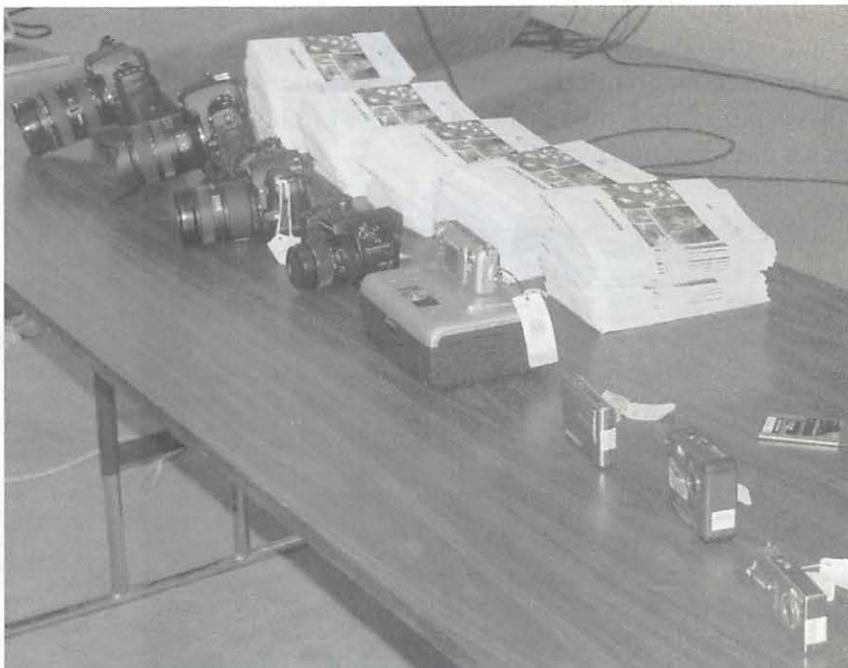
Metadata

A question about attaching annotations to images brought Chris to a discussion of the various ways that different image cataloguing programs treat the "metadata" - data describing the image that cameras record. There are generally two pieces to the metadata - EXIF and IPTC. The EXIF data captures information that the camera knows about, while IPTC data has to be entered from other sources. Chris showed how this data could be edited in *Elements*, *GraphicConverter* and *iPhoto*. Chris alluded briefly to *iView Media Pro* as a higher-end cataloguing product.

This discussion led into the issue of asset and workflow management, a subject that the Pi's Graphic Arts SIG expects to take up later this fall. It was obvious that the audience could have kept asking questions for another hour or more, but the session had to be gavelled to a close.



Pi President John Barnes guides the Question and Answer session at the July General Meeting. As usual, the questions were lively and thought-provoking, as were the answers. (Photo by Lawrence I. Charters, taken with a Minolta A2 digital camera.)



Penn Camera provided a wide range of digital cameras for the July General Meeting, ranging from the high-end professional to the inexpensive "fits in a small purse" point-and-click style. The large stack of books, titled "The Nikon Coolpix Digital Photography Guide," proved to be inadequate to handle the large crowd. (Photo by Lawrence I. Charters, taken with a Minolta A2 digital camera.)



Chris Butcher of Penn Camera was the featured speaker at the July General Meeting. An accomplished photographer, he helped guide Penn Camera into the digital world around ten years ago, and his vast knowledge of the world of photography was readily apparent. (Photo by Lawrence I. Charters, taken with a Minolta A2 digital camera.)

Chris passed out 100 copies of "The Nikon Coolpix Digital Photography Guide." Unfortunately his stock ran out before everyone was able to get one; he said he will look into getting more copies sent to the Pi.

Conclusion

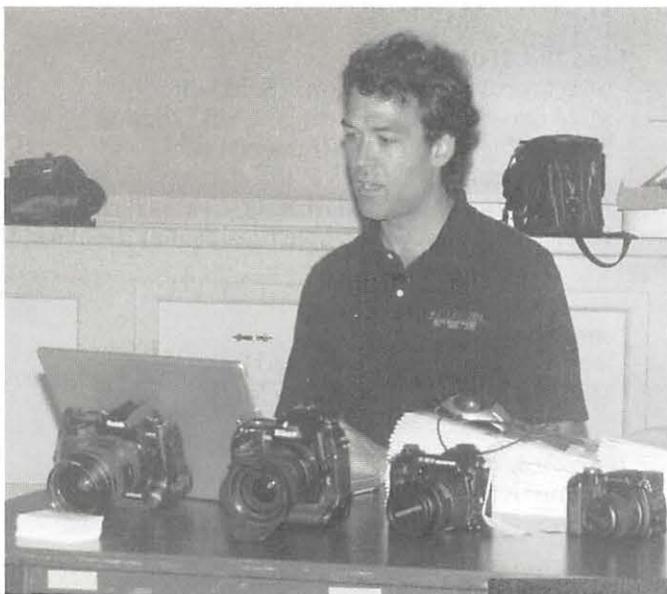
The meeting closed with a short business session highlighting upcoming programs and recent activities. The usual raffle and drawing closed out

the day. Even after the meeting was over, audience members crowded around the table to continue quizzing Chris and admiring the display of cameras.

So far there has been quite a lot of member feedback from this meeting, uniformly rating it as outstanding. The choice of subject had a lot to do with it, but the presenter was engaging to the point where scarcely anyone came away without feeling energized and engaged. Any member who has an idea for a meeting that is equally likely to interest our membership is welcome to drop it into the suggestion box at vpprograms@wap.org. ■



The July General Meeting was a good chance for digital cameras to see their close relatives, such as this Minolta A2, photographed by a Minolta A2. (Photo by Lawrence I. Charters)



In addition to talking about digital cameras, Chris Butcher also talked about software at the July General Meeting. He discussed everything from Adobe Photoshop CS at the high end to Lemke Software's famed (and very inexpensive) GraphicConverter. (Photo by Lawrence I. Charters, taken with a Minolta A2 digital camera.)

Two of the high-end professional digital cameras at the July General Meeting. The Nikon on the left is a favorite of sports photographers looking for very high shutter speeds and a vast array of lenses and peripherals. The Kodak on the right is famed for its superb attention to color and saturation. (Photo by Lawrence I. Charters, taken with a Minolta A2 digital camera.)



Pi Fillings, the CD What's on the CD June-July 2004

THE JUNE and July CDs were combined for this issue. The focus of the CD was digital photography. CDs can be purchased at the monthly meeting for \$10.00. They can be purchased at the WAP office in Rockville or they can be ordered by phone by calling the Office. There is a \$2.00 charge for postage and handling on mailed orders.

Apple Software

*Links and Info Only

0403xx=Date Released

AirPort Extreme Update 3.4.2 040604

DVCProHD Components 1.1 040621

iPod Updater 2004-07-15

iTunes 4.6 040609

Mac OS X Combined (10.3.4) Update 040525*

Mac OS X Combo Server 10.3.4 Update 040526*

Mac OS X Server Admin Tools 10.3.4 040614*

Mac OS X Server Update 10.3.4 040526*

Mac OS X Update 10.3.4 040526*

Security Update 2004-05-24 (10.2.8)

Security Update 2004-05-24 (10.3.3)

Security Update 2004-06-07 (10.2.8)

Security Update 2004-06-07 (10.3.4)

Verizon BroadbandAccess Support 1.0 040628

Xserve RAID Admin Tools 1.3.1 040706

Breen's Bungalow

June 2004 -- Hidden and useful features in programs that you probably already have on your Mac.

July 2004 -- Favorite "cool applications." If you think you know them all, you haven't seen the July Bungalow

MUG Genter UGR

409 -- The Digital Video Professionals Association, Steel Blue Sky

410 -- Macworld Expo, Josephine County Macintosh Users Group

411 -- Signature Leadership, Total Training

412 -- Peach Pit Press, Colorado Macintosh User Group

Shareware-Freeware

**Mac OS X

++Mac OS 9 and X

**Circus Ponies NoteBook 1.2 (v181)

**Creo Tokens 1.0

**Foto Ensemble 1.0b6

**NetNewsWire 1.0.8

**NetNewsWireLite 1.0.8

**PhotoRetouch DigiCam 3.1

**PhotoStickies 5.1

**Picture Rescue 1.0.3

**PixRecorder 3.0

**Polymerge 1.1

**SnapNDrag 1.4

**Unison 1.0.2a

**ViewIt 2.4.7

**VLC media player 0.7.2

++DiapOPict X 3.1.7

++Flexify 1.96

++GraphicConverter 5.2.1

++iView Media 2.5.1

++LensFix & PanoTools 2.0.19c

++ZeboPhoto 1.5.1

Software Cinema Tutorials

Cropping and Straightening Photos

WAP Electronic Services

Your Mac Life Radio Show

Peter Cohen of MacCentral and Macworld Magazine is a guest each week. In addition to Peter, the following guests were interviewed.

June 2nd, 2004

- John Morrison, CEO - Morris SoftDesign

- Mike Lapeters, VP marketing - CMS Products

- Schoun Regan, The Mac Trainers

June 9th, 2004

- Andrew Green, VP of Marketing, Griffin Technology

- Warwick Davies, Group Vice President at IDG World

Expo

June 16th, 2004

- John Grzeskowiak, CEO of RadTech

- Matt Deatherage, Publisher of MacJournals

June 23rd, 2004

- Helmut Kobler, Director, Radius

- Jason Snell, Editor in Chief, Macworld magazine

June 30th, 2004

- Chuck Goolsbee, VP of Technical Operations, Digital Forest

- Warwick Davies, VP, IDG World Expo

- Bryan Brandenburg, Chief Profit Officer, DAZ Productions

- Arlo Rose, Konfabulator

July 21st, 2004

- Rick Wootten, palmOne

- Dave Sarazen, Battery Technology Inc

- Kevin Langdon, The Apple Specialists Marketing Co-Op

July 28th, 2004

- Chris Breen, Macworld

- Alberto Moriondo, Motorola ■

Impressions of MacWorld Boston 2004

© 2004 John Barnes

MY FIRST reason for traveling to MacWorld Boston 2004 was to participate in the User Group Leadership Conference organized by Chuck Joiner and the Apple User Group Advisory Board. My second purpose was to see if the event had any redeeming qualities after all of the spleen and venom that had preceded it.

The Leadership Conference - Monday, July 12th

Nancy and Jim Little, Pat Fauquet and I made up a nice little Pi delegation. I made the acquaintance of a number of other East Coast MUG leaders and I learned a good deal from their presentations. The sessions started around 12:45 pm on Monday, July 12th, and lasted until 6 pm. The Littles came up by train on Sunday. Pat and I flew up on Monday. My Airtran flight from BWI came off without a hitch. Pat suffered through two flight cancellations due to bad weather in the New York area. She did get there (just) in time to register. (See Figure 1.)

There were two parallel session tracks dealing with issues of governance, meeting planning, Web site design, etc. The presentations are on a CD-ROM. Ask any member of our delegation if you want to view them.

Following the Leadership Conference Adobe hosted a special reception and demonstration featuring Dave Hemsley and Terry White. Dave pushed *After Effects* and Terry ran down a demonstration (available on the Adobe CS CD) of how to build a multilayered brochure. A highlight of Adobe events is the giveaway drawing, and our own Pat Fauquet was the lucky winner of the highly prized Adobe Jacket. This makes two in a row for Pi, as Dick Sanderson came away from San Francisco with this prize. Every at-

tendee received a copy of *InDesign CS* accompanied by a stern warning that the appearance of a single copy on eBay would end such giveaways. These are intended to help User groups produce better desktop publishing documents, especially newsletters.

The Expo, July 13th -15th

The keynote session on the first day featured a panel made up of leading members of the original Macintosh engineering team. Steve Jobs' chair was occupied by a pair of blue jeans and a black tee shirt (See Figure 2). The four panelists had all moved on to other things. Their views are widely published elsewhere; just Google Andy Hertzfeld, Bill Atkinson, Jef Raskin, or Jerry Mannock to see how they feel.

Derrick Story's commentary "MacWorld Boston 2004: Brains Over Beauty," posted at:

<http://www.macdevcenter.com/pub/a/mac/2004/07/14/macworld.html>

gives a pretty accurate reflection of the small scale of the Expo floor in relation to the intellectual content of the show, which was to be found in its various learning tracks.

The exhibition floor occupied perhaps 6 percent of all of the space that was available in the truly vast Boston Convention and Exhibition Center (BCEC). Figure



Figure 1—The registration table at the UGLC. Pat Fauquet is just visible in the background. The lady at the far right is Sandy Foderick, a member of the Apple User Group Advisory Board. Photo by John Barnes using an Olympus C5050Z digital camera.



Middle – Terry White, Adobe presenter par excellence, here wearing his MacGroup-Detroit Autocrat’s hat. Photo by John Barnes using an Olympus C5050Z digital camera.



Maria Aguilero fo the Main Line Mug and a cohort. “Planning Cool MUG Events” was the theme of Maria’s presentation. Photo by John Barnes using an Olympus C5050Z digital camera.

3 shows how the exhibit space takes up about 1/3 of a hall that is itself 1/6 of the total exhibition floor space. On the other hand, the seminar activity used about a quarter of all the classroom space. There were probably a dozen events going on at any one time. With four or five seminar slots each day there were surely over 100 presentations of one kind or another.

I signed up for the “Pro Conference Sessions” track because its sessions looked like a good fit with my interests. Each session was about 1 1/4 hours long, with a 1 1/4 hour break between sessions. Four sessions or so per day made for quite a lot of content to be absorbed and the lunch break was just about long enough to turn in my lunch ticket in the BCEC Food Court. The afternoon break, from 2:45 to 4:15 provided more than enough time to hit the Expo floor.

The faculty roster for the seminars was much the same as I had seen at MacWorld SF this past January,

representing names like Ted Landau, David Pogue, and other lesser-known individuals who are primarily members of the Apple Consultants network. The price of admission included a CD-ROM with PDFs of everyone’s slides.

Combine this fairly intensive learning activity with some time spent in the Users Group lounge listening to people like David Pogue and Phil DeVita and the paucity of excitement on the show floor was tolerable. I did enjoy talking to people like ProSoft and iView Media and I picked up few goodies for review and our monthly raffles.

The most interesting piece of hardware that I saw was the Xerox 8400 printer. The Tektronix ancestor of this device as a “drool over” item when I was working, but the price was waaay too steep. At around \$1000 this begins to look like a very attractive item, especially for its stunning color. I need to do some research to see if there is a future for this beauty on my network.

A highlight of the show for the Little Family was Jim’s winning of a 40 GB iPod in a drawing at an eBay session. The fact that those sessions always seemed to be crowded has inspired me to look into the possibility of a General Meeting on eBay topics. Any volunteers?

Our *Journals* finally arrived Wednesday morning and Ned Langston and I passed out all 200 of them, mostly from the User Groups table. The folks who picked them up were uniformly astonished to see that a User Group had gone to the trouble necessary to put out such an ambitious publication. I think we have already seen a couple of memberships flow in from this effort.

Whither MacWorld East?

As I was riding to the airport on Thursday afternoon the cabbie started bemoaning the fact that attendance was way below expectations. He said that he had heard the number 5,000. He said that the cabbies were told to take it easy the week before because they were going to have their hands full from the 13th to the 15th. To those people who kept wondering “why isn’t Apple here?” I answered, “because Steve Jobs is a smart businessman.” I would then ask them what their next Apple purchase was going to be and when they might make it. I would also ask, “are you using Panther?” The response among these people who so fervently wanted to see Apple was almost uniformly “no.”

IDG does not need Apple to make a success of an effort that lets Mac enthusiasts get together for concentrated learning. The Sheraton Boston Hotel could have easily handled this event and everyone would have been happier.

The Boston Convention and Exhibition Center is

nowhere near finished. It sits isolated on a patch of land that was probably chosen because nobody else wanted it. This detracts seriously from anyone's ability to enjoy a visit to a major city. The social aspects of MacWorld Boston reflected this because no one expected anyone to go out of their way for dining and entertainment.

In fact, now that Steve Jobs is out of the picture, the East Coast MacWorld should follow its own head and move up and down the coast to take advantage of outstanding meeting facilities in Washington, Atlanta, Baltimore, Philadelphia, etc. A modest traveling trade show should be at least as profitable as a hegira on a cruise ship. If you think I am joking, Google "MacMania III."

All of the cities mentioned above annually host trade shows and conferences that are bigger than an East Coast MacWorld would ever be. A little change of scene each year would bring many new people who would enjoy meeting the personalities. The second-tier vendors would not have to pay nearly as much for exhibit space. A more modest scale based on intellectual content from the best teachers in the Macintosh community would be something that a lot of people could enjoy.

I doubt seriously that I would go to MacWorld Boston if it happens next year in the same format as this year. I have learned about as much as I can hold of the wisdom offered in the seminars. I do plan to do San Francisco in January of 2005, with somewhat more emphasis on intelligence-gathering on the show floor.

Finally, a note for those who have asked why the Pi did not do a bus trip to Boston - Did you really want to ride for 10 hours in a bus, stay at least two nights in an expensive hotel and ride another 10 hours back? At a cost of something like \$500? A Pi expedition to MacWorld Boston would be a cool outing, but let's take a realistic view of the costs and the itinerary. ■



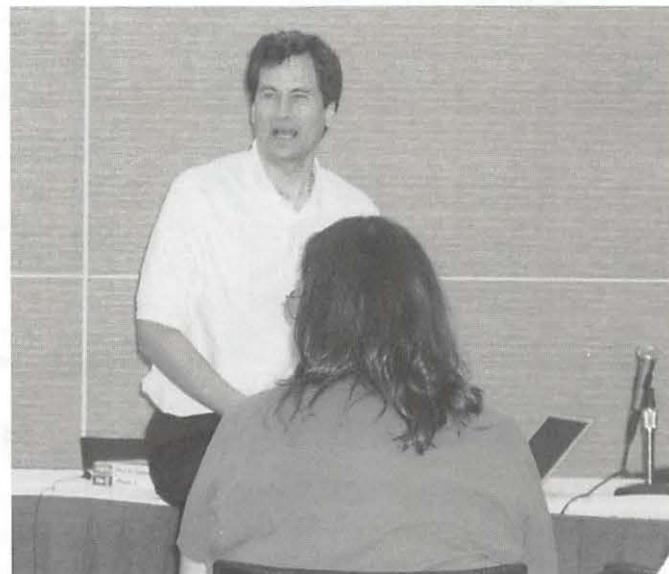
Waiting for the Tuesday keynote. Photo by John Barnes using an Olympus C5050Z digital camera.



Figure 2—The Macintosh 20th Anniversary Panel. L to R: Pogue, Hetzfeld, Atknison, Rasfeld, Mannock, and blue jeans. Photo by John Barnes using an Olympus C5050Z digital camera.



Figure 3—Bird's eye view of the expo space. One way to make people feel there is a crowd is to put them into a small space. Photo by John Barnes using an Olympus C5050Z digital camera.

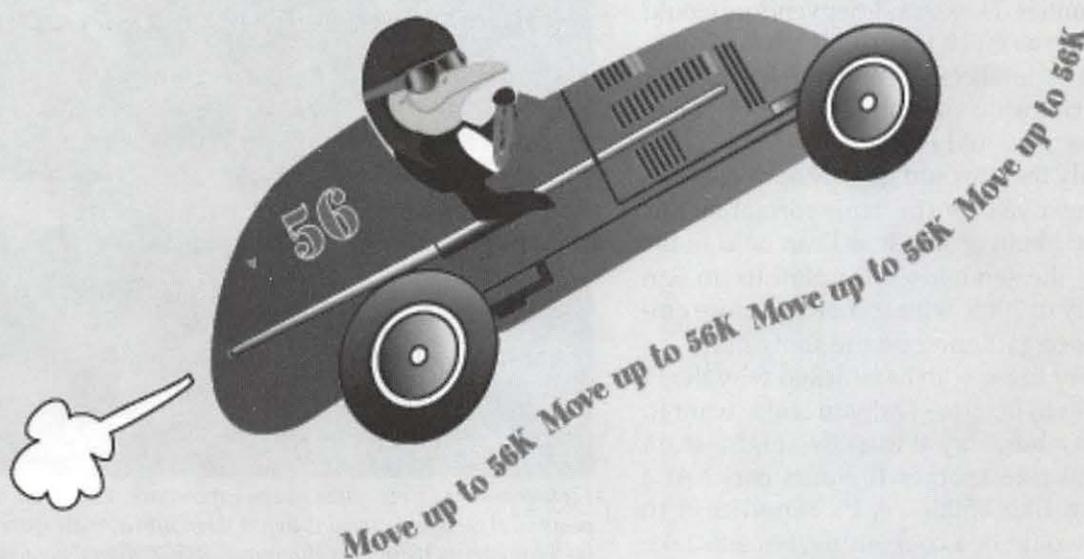


David Pogue holding forth in the User Group Lounge. Photo by John Barnes using an Olympus C5050Z digital camera.

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"Two Thumbs Up!"

—The TCS Penguins

<http://www.wap.org/config/>

Not yet a subscriber? Come see what you're missing...

E-mail: Keep It Simple

© Lawrence I. Charters

I RECENTLY found myself in the middle of an E-mail exchange that annoyed me on any number of fronts. I went looking for a set of on-line rules of E-mail etiquette and style, but what I found were outdated, focused on the wrong things, or were nonsense. So I wrote my own.

I routinely get several hundred E-mail messages a day. Many of them are sent by computers, telling me about their status, and a huge number are sent by the countless Windows-based Spam-spewing zombies that pollute the Internet. Most of these get filtered out in various ways, leaving me with a few dozen each day meriting attention. How do you get attention?

No more than one topic per E-mail.

This is a simple rule, adopted from the sacred rules of business memos. If you write a message, limit it to one topic. If you have multiple topics, you are all but begging that most of the topics will be cast aside, overlooked, or ignored.

Use a good subject line.

An E-mail is a simple form. It has three fields: the *addressee*, the *subject*, and the *message*. It is amazing that, given its simple nature, so many messages manage to get at least one of these fields wrong.

Of course, if you get the address wrong, that isn't too much of a problem: the recipient won't see the message, and it won't bother them. If you forget to include the message itself, that's also easy: some anti-Spam filters will automatically toss the message.

Anti-Spam filters may also automatically flag messages that have dollar signs in the subject, since it is a good guess that "Earn more \$\$\$ now!" is not something you need to read. Sending budgeting information as "\$\$\$ info" is probably not a good idea. "Meeting agenda" is also poor, since it doesn't identify the meeting, time or purpose. If you have two dozen meetings to go to in a week, getting two dozen messages titled "Meeting agenda" could strain your sanity.

Most modern E-mail clients allow you to search messages by subject line, so be as descriptive as pos-

"An E-mail is a simple form. It has three fields: the addressee, the subject, and the message. It is amazing that, given its simple nature, so many messages manage to get at least one of these fields wrong."

sible: "2006 budget figures for extrasolar research" is descriptive, as is "Your silly editorial comments on E-mail." My anti-Spam filters won't delete these, and I'll probably read the messages, too.

Make sure the E-mail has a clear purpose.

People tend to read E-mail in a hurry. If you are asking for help, ask. If you are telling a joke, tell it. If your purpose isn't obvious, you probably won't get a response. If you *routinely* send messages without a purpose, the recipient may simply add your name to their anti-Spam filter.

Use short paragraphs.

Many people still have tiny computer screens, and long paragraphs are hard to read. Even if they have a giant screen, long paragraphs are also *tiring* to read. If it is easier to delete your message than struggle to read it, people will delete it.

Check your spelling.

Almost all modern E-mail clients have spell checkers. If you couldn't take the trouble to correct the spelling, should the recipient take the trouble to read it?

Proofread your E-mails.

In the past few weeks, I've received E-mail messages that had these improbable claims:

"We will be pairing down the projects." Presumably this has something to do with animals and an ark.

"I will wait with baited breath." You have a mouth full of worms?

"He will right the forward." But who will write the foreword?

"Your positive response to this message indicates your concordance." Presumably, they meant to say, "Unless you respond to this message, we assume you concur." But who knows?

Would I say this in person?

Because E-mail is fast and seemingly instantaneous, people tend to be more belligerent in E-mail than in person. It is easy to "flame" someone in the height of passion, especially when they aren't around. So ask yourself: if this person was standing right in front of me, within range of their fist, would I say this? If the answer is "no," don't send it via E-mail.

A good general rule: send any angry E-mail messages to yourself, first. When it arrives in your In box, read it again, putting yourself in the shoes of the recipient. If the message doesn't make the world a better place, don't send it.

Will this person know I'm joking?

People are fired every day for sending something via E-mail that they intended in jest. They send fake seduction notes, jokes about bombs or other violence, parodies of something a boss or coworker said or did, etc. If the recipient doesn't know it is a joke, or doesn't believe it is funny, you could lose your job. Or get locked up.

Many people advocate the use of emoticons, such as :-), to indicate that something is a joke. My own view is that English managed to convey written humor quite nicely for a thousand years before emoticons were invented, so I avoid them. Whichever path you choose, make it clear when you are being humorous.

Send the E-mail as a text message.

Every E-mail client in the world can read text messages, and text messages also are the least burdensome on networks. If you send a heavily formatted message, with multiple type styles and colors, not to mention sounds and graphics, there is a good chance the recipient will not be able to read it, and it will certainly take longer to receive – a burden for those using dial-up connections, or cell phones, or PDAs.

If this wasn't bad enough, many users set their E-mail clients to explicitly strip out everything but text, regardless of the capabilities of the client. They do this as an anti-Spam

measure, or to speed up the transmission and receipt of E-mail, or simply because they find the formatting annoying.

Avoid enclosures or embedded graphics.

Possibly the most aggravating E-mail is one that says, "See attachment." You download the attached Word file, open it up – and discover it is a two-paragraph memo. If at all possible, include your message in the E-mail itself – not in an attachment.

Exercise similar care with graphics. Many recipients with older E-mail clients may have trouble with multiple attachments per E-mail, so in case of doubt, send no more than one photo per message. Make sure the photo is in a form the recipient can read (virtually everyone can read a JPEG-formatted graphic). And make sure all attachments have an extension. Word documents should end in .doc and JPEG graphics should end in .jpg – failing to add such extensions may leave your recipient with a message filled with gibberish.



Spam is considered a delicacy in some countries. In the U.S., it has a somewhat different reputation. By following some simple guidelines, you can keep your carefully-crafted E-mail messages out of someone's anti-Spam filter, and have them read as well. (Photo by Lawrence I. Charters, taken with a Canon PowerShot S-300 digital camera.)

Learn what "priority" means in an E-mail system.

Many E-mail clients have a "priority" setting. You can declare a message normal, High, or Low priority, or use some other scale. Believe it or not, the priority settings will *not* make your message get to the recipient one second faster, or slower. Since "priority" has no standards-based equivalent, whatever priority you pick will be ignored by anyone using a different client. Apple's Mail client, for example, has no support for "priority" at all.

Adding "Important," "Urgent" or "Act now" in the subject line won't work, either, since this is a popular technique used by Spammers. Priority, ultimately, is your good name and reputation: if someone thinks you are important, they will read your messages without delay.

Beware of carbon copies.

Generally speaking, avoid sending carbon copies and blind carbon copies to people. Unless there is a genuine need to tell the same thing to multiple people at once, this is often counter productive.

Case #1: You think sending a carbon copy to a bunch of people will put pressure on the recipient to do something. It is just as likely they will be irritated at the implied pressure, and use this as an excuse to ignore you completely.

Case #2: You think sending a carbon copy will "let everyone know" something and act accordingly. But since all the recipients see that "everyone knows," they may all decide that "someone else" will act, and nothing will get done.

Blind carbon copies have another drawback. So much Spam is sent out as blind carbon copies that many anti-Spam filters automatically trash messages in which the recipient isn't explicitly mentioned in the "To" or "cc" fields.

Beware of forwarding.

Merlin, King Arthur's tutor, lived his life backward. He knew what the future held, but had no knowledge of the past. This made things awkward.

Equally awkward are Merlin-like messages. If John sends a message to Bill, and Bill forwards it to Ruth, and Ruth forwards it to Sally, and Sally forwards it to Karen, and Karen forwards it to you, and everyone has tacked on a few of their own comments, what do you have? You have a difficult to read message, since you must read backward in time, trying to discover the original thought.

Forget using receipts.

Some E-mail clients have provisions for "return receipts," which send back an E-mail message to you when the recipient reads the message. These don't work unless *all* the recipients use the same client, and are *all* using the same E-mail server.

Even worse, getting a receipt does not mean the recipient read the message. It is just as likely to indicate that the message passed through some E-mail gateway somewhere. You think the recipient read the message but, in reality, it was "read" by a computer that passed it from one point to another.

Include a signature line.

Most people neglect to identify themselves in their E-mail messages. This is fine when you are writing to your mother or daughter or someone else that you regularly correspond with. But what if the person doesn't know you that well, or at all? What if your E-mail address is less than descriptive? Your nickname might be "duke," or you might like "charging horses," but an E-mail address of duke@comcast.net doesn't really tell people who you are, nor does chghorse@erols.com. So add a signature block to your messages, especially those sent to people that may not know you. The signature block should give your real name, and if possible add something to your message. You can use it to promote your hobby, your personal Web site, you voting preference - whatever seems appropriate. Examples:

```
Lawrence I. Charters      webmaster@wap.org
http://www.wap.org/      Mac OS X: Because
making UNIX user friendly was easier than
fixing Windows
```

```
Lawrence I. Charters      maceditor@wap.org
Washington Apple Pi Journal: http://www.wap.org/journal
In the force if Yoda's so strong, construct a sentence
with words in the proper order then why can't he?
```

Warning: avoid signature blocks wider than 70 characters, or longer than four lines. Many mail clients will simply throw them away if they exceed these limits.

E-mail, e-mail or email?

Which is correct: E-mail, e-mail or email? My preference is for E-mail, using as my grammatical precedent the use of V-mail (Victory Mail) in World War II. But that is an issue for another article. ■

Restoring Sight to a Blind iMac

by Lorin Evans

IT IS NO FUN to see your iMac go blind. It is especially not funny if that happens while you are trying to update your operating system from Mac OS 8 or 9 to OS X. It need not happen. This is the story about why it can happen, what you can do to prevent it from happening, and if it does happen, what may help restore sight to your iMac.

Getting Started

When you turn on the power to your Macintosh, it goes through a start-up sequence. It powers up your picture tube, it does a quick memory check (that bong you hear), the smiley face appears, the operating system begins to load, and off you go. From the earliest Mac until the iMac, the code that makes that start-up possible resides in some chips on the motherboard. The code, called 'firmware' is permanently embedded in those chips and cannot be changed. On some motherboards there is a SIMM socket that holds the chips containing that read-only memory (ROM) information. No changes mean no updates, unless you replace the ROM SIMM.

Beginning with the iMac series of computers, Apple stopped hard coding firmware for the ROM that boots (starts) your computer and placed that start-up code in something called flash EPROM memory chips. Such chips can be erased and reprogrammed.

Flash ROM makes it possible for Apple, or any company that incorporates such chips in their equipment, to update the software that resides inside those chips. The updates are known as Firmware Updates and come as small applications that you download and install. Keep in mind that firmware, the software that manages your computer, is different from the operating system software [Mac OS 9 or X] that run on your Macintosh.

Flash ROM in modems makes it possible for you to update your modem to take advantage of newer standards in data transmission or eliminate flaws discovered in the code originally embedded in that device.

For example, if you have a:

- Global Village 33.6k or 56k modem, the firmware update is at: <http://www.globalvillage.com/support/softwarelocator.html>
- US Robotics modems have their firmware updates listed at: <http://www.usr.com/support/s-main-menu.asp>
- Best Data modems are at: <http://www.bestdata.com/support.asp>
- Apple internal modems in the G3 desktop or mini-tower, iMac, Power and iBooks can be updated at: <http://docs.info.apple.com/article.html?artnum=85018>

Flash ROM in a modern Macintosh means that it is possible for Apple to address issues it finds with a computer's on-board code. Apple releases what it calls firmware updates – software to be loaded into flash memory chips on the motherboard of your computer and onto special chips of peripherals like the modem and CD/DVD drive. These updates address problems found in the code used when your computer was first released; they enable older machines to recognize new features found in more current versions of the operating system; and they enable Apple to incorporate newer industry standards for such input sources as USB and FireWire.

For the iPod, updates to the software that controls your iPod may also update the firmware for the iPod's hard drive. Updates do not affect the songs and files stored on the iPod. iPod updates can be found at: <http://www.apple.com/ipod/download/>



Marathon's iRack with the cover removed but with an iMac CD-ROM drive installed. Note the power button to the left of the CD-ROM slot, and the front-mounted USB and FireWire ports to the right. Exactly what role was played by the pineapple is unclear, but there are signs that it may have been critical. (Photo by Lorin Evans, taken with a Pentax Optio S digital camera.)

What's in it for me?

Now as nice as Apple is by releasing updates to the original firmware installed in those chips, they can't make you install those updates. This article is our attempt to cajole you to update the firmware in whatever model of Apple device you are using, be it one of the original iMacs or an iPod. There is a firmware update looking for a home in your Apple gadget.

And, just in case you need a nudge, I will tell you a nice icky story of what happens when someone skips a few steps while updating their operating system from Mac OS 8 or 9 to Mac OS X. The step skipped was the installation of the firmware update.

If you own an iPod or one of these Macintosh models running under some version of Mac OS 8 or 9, this is a must read for you:

- iMac*
- blue & white (G3) tower
- gray (G4) tower
- PowerBook (G3) with a bronze keyboard *and* built-in FireWire
- Titanium PowerBooks
- iBooks

*NOTE: if you own an iMac and have installed none of its updates, go to:
<http://docs.info.apple.com/article.html?artnum=58174>. You will find a complete listing of all updates for all models. Pick those that apply to your machine and install them first.

What is the version number of my firmware?

Apple System Profiler displays your firmware's version number. To view the revision information, choose "Apple System Profiler" from the Apple Menu. On the System Profile tab under the Production Information, read the number after "Boot ROM version." (See Figure 1.)

For an iPod or an iPod mini, you can determine

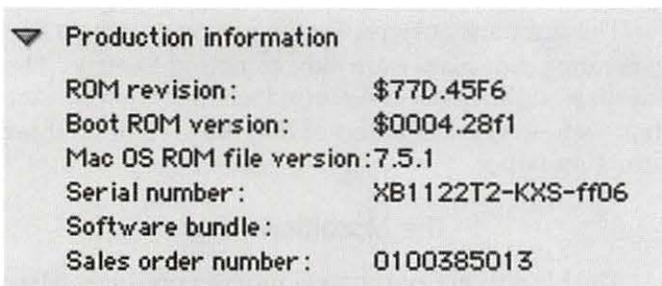


Figure 1. This is an example of a G4 which has the latest version of Firmware installed.

which version of software is installed by selecting the 'About' or 'Info' screen, or by connecting iPod to your computer. More detailed instructions can be found at:
<http://docs.info.apple.com/article.html?artnum=60984>

Now What?

If your computer appears somewhere on that list, there is a firmware update for you to install. It **must** be installed before you install Mac OS X.

I Have An

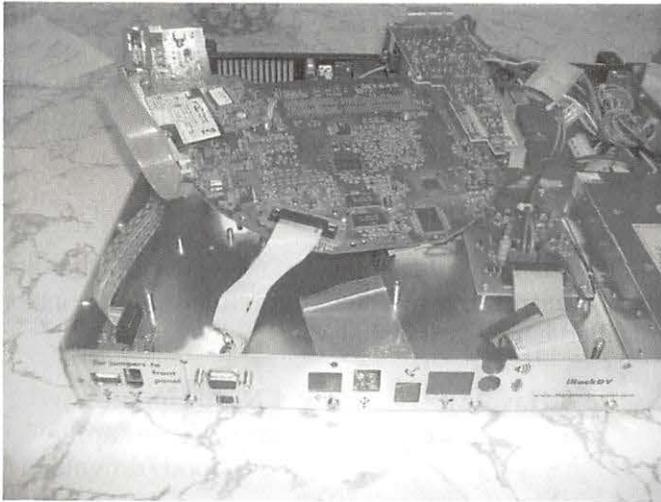
iPod

I Need Update

<http://www.apple.com/ipod/download/>

iMac (Summer 2001)	4.1.9
iMac (Early 2001)	4.1.9
iMac (Summer 2000)	4.1.9
iMac (Slot Loading)	4.1.9
iMac 333 MHz	1.2
iMac 266 MHz	1.2
iMac 233 MHz	1.2
iBook (clamshell) -ALL	4.1.7
Power Mac G4	
(DigitalAudio)	4.2.8
(Gigabit Ethernet)	4.2.8
(AGP Graphics)	4.2.8
(PCI Graphics)	no update needed
Power Mac G4 Cube	4.1.9
Power Macintosh G3	
(Blue&White)	1.1
w/SCSI Ultra2 Card	1.2
G3 Desktop	Mac OS X 10.0 SCSI Card Update
G3 Mini Tower	Mac OS X 10.0 SCSI Card Update
PowerBook G4	4.1.8
(Gigabit Ethernet)	4.2.9
PowerBook G3	
(dual FireWire)	4.1.8
(Bronze Keyboard)	no update needed
(Wall Street)	no update needed

The latest version of this list along with links to each of the updates is found at: <http://docs.info.apple.com/article.html?artnum=86117>



Since this operation was intended for a quick recovery of the iMac via a firmware update, the iMac logic board is not fully mounted in the iRack. On the other hand, all the necessary cables are in place, permitting the iMac to be booted and updated. (Photo by Lorin Evans, taken with a Pentax Optio S digital camera.)

Not Me

That's understandable – which is why there is a Tuesday Night Clinic. Whether it is firmware to update your Mac or your iPod, they are happy to walk you through the process or, if you bring your machine in, do it for, or with, you.

Where's The Icky Story

If you install Mac OS X before you install the firmware updates for your Macintosh, you most likely will lose video. The computer sounds like it is running, but you can see nothing on the screen. You are in trouble.

Unfortunately the documentation for Mac OS X 10.3 (Panther) and the Read Me file on the installation CD do not make this clear. The wording in the ReadMe file has led some to believe that it is safe to run the Mac OS X installer as a way of finding out if you need to upgrade the firmware. Don't believe it.

The firmware update for your Macintosh includes a change in the software to account for the way Mac OS X composes the video you see on the screen. The new code makes adjustment to the built-in Power Analog Video (PAV) card in your computer. The PAV card drives what you see on the picture tube. You are especially in trouble if you own the first generation slot-loading iMac.

Why?

You installed Mac OS X before installing the firmware update; now can't see anything. You need to in-

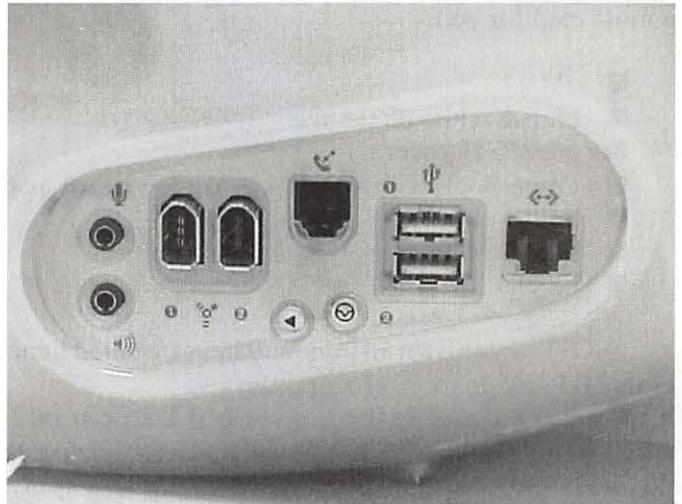
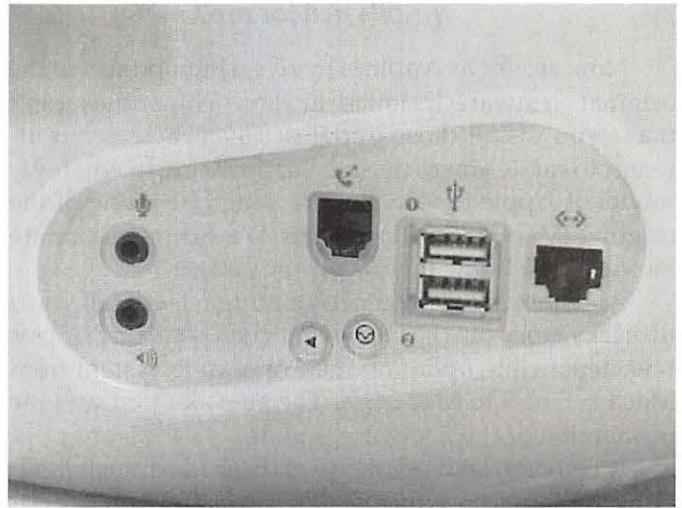


Figure 2. The top example does not have an external video connector. The bottom example does.

stall the firmware updates you neglected to do first – but, because you can't see anything, you can't install anything. Your one hope is to try and bypass the display video circuits in your computer and move that video to a monitor other than the one in your now blind iMac. You can't: your model does not have the ability to deliver external video. You now have a fancy paperweight. (See figure 2.)

The standard answers for the person owning a first generation slot-loader are akin to taking Laetrile. The Tuesday Night Clinic crew found a better answer - one that even works. They do not like the idea of an iMac sitting on paper.

The Marathon iRack

The Marathon Computer Company produces a line of rack mounting adapters that makes it possible to in-

“Beginning with the iMac series of computers, Apple stopped hard coding firmware for the ROM that boots (starts) your computer and placed that start-up code in something called flash EPROM memory chips. Such chips can be erased and reprogrammed.”

stall a modern Macintosh in a standard commercial data rack enclosure. You can view their full line of adapters at: <http://www.marathoncomputer.com/>.

For the iMac, they make two models of interest to us: one for the older tray-loading iMac and one for slot-loaders. You supply the CD, hard drive, motherboard and a monitor. Marathon supplies the rest.

The Pi's night owl clinicians were fortunate to have access to an iRack as part of a test program. So, reasoned these feathered experimenters, if the iRack will supply external video, why not use it to restore video to a now blind iMac? That is what they did, and it works.

What Did They Do?

The theory behind all this is that some facet of the video display in Mac OS X is different from the standard rates in prior versions of the Macintosh operating system. Thus, without reprogramming the video circuitry to understand these new video rules [a firmware update], the screen goes blank.

To repair the damage, we need to do two things: (1) gain access to the video external to the iMac to see what is going on; and, (2) boot the machine into Mac OS 9 so that we can install the firmware update. Firmware cannot be updated from within Mac OS X. Do keep in mind that this is a methodology to restore video to an otherwise working iMac; it will not undo other woes.

The Clinic crew removed the motherboard from the slot-load iMac and connected it to the iRack. They then removed the hard drive and CD drive from the iMac and installed them in the Marathon box. A multi-synch monitor was attached to the Marathon video connector.

The Mac OS 9.1 or later install CD has the firmware patch on it. The crew booted the iMac motherboard now installed in the iRack from the CD. Because the motherboard is now running under Mac OS 9 into the external monitor, we can see video. Now it is possible to perform not only the firmware updates, but install software or perform other diagnostics.

The firmware updates is applied following the instructions on the CD. The crew then performs assorted tests to make sure all is well. It is now possible to put all those pieces back in the iMac and have it display video on its built-in monitor.

Amazing what a bunch of night owl technicians can conjure up.

I Want To Do It

Why? After all I have written, you should be more interested in installing the firmware updates that apply to your computer or iPod. What the technical wizards did that Tuesday night was made possible only because they had access to a Marathon iRack box. They are pricy and not something that one has lying around the house.

If you are interested in doing this, you must be comfortable taking apart your computer, have a working multi-synch monitor and access to an iRack. Be neat; always note what secures what where. Remember, not all screws fit in all holes. The Marathon folks have a very complete iMac disassembly PDF on their website.

And when you get discouraged, the clinic crew will repair and reassemble your iMac in trade for that iRack you bought.

Installing the firmware first is so much simpler.

References:

Marathon Computing iRack
<http://www.marathoncomputer.com/irac.html>

Apple Firmware chart on line:
<http://docs.info.apple.com/article.html?artnum=86117>

iMac: When to Install Available Updates <http://docs.info.apple.com/article.html?artnum=>=58174> ■

OpenOffice.org can cure your MS Office compatibility blues for free

Introduction to OpenOffice.org

by Doug Brown

LAST JANUARY, my wife suggested we get a dual processor 2 GHz Power Mac G5 with 512 megabytes of RAM (Gotta love her!). As much as I liked the classic Mac OS, I decided to make the transition to Mac OS X (Panther) as quickly and efficiently as practical. I retained *AppleWorks* and updated it to version 6.2.9, but this does not provide me with sufficient compatibility with files from work, which are decidedly not in *AppleWorks*. I considered updating *MacLink Plus*, but I was never ecstatic about the combination with *AppleWorks* under Mac OS 9.2.2. My enthusiasm for Microsoft (MS) *Word* has waned since version 6.0 replaced 5.1, so I investigated other alternatives. I looked at, and discarded as unlikely suitors, the *icWord / icExcel* combination and *NisusWriter Express*. I tried the *ThinkFree Office* demo program, but I couldn't solve a printing problem. I even stumbled across an open-source software program called *OpenOffice.org* and I wondered just how good a free program could actually be.

The crisis came in March, when my daughter decided to make a *PowerPoint* presentation in her middle school science class. *AppleWorks* won't save to a *PowerPoint* format nor would *MacLink Plus* make that conversion. So as a supportive parent, I swung by my local Mac reseller (Mac Business Solutions) and bought *Keynote 1.0* (since updated to 1.1.1). My daughter had no difficulty putting together a beautiful ten-slide presentation, but when tested on a PC it had not converted well to *PowerPoint*. Since I also need this cross platform capability for my work, I needed another plan. I was intrigued by everything I read about *OOo* (*OpenOffice.org*), but I hadn't a clue what an X Window was and my total knowledge of UNIX came from a dozen viewings of "Jurassic Park" with my children: "It's a UNIX system! I know this!"

OpenOffice.org is an open source, cross-platform office productivity suite, which became available to the Mac community with the introduction of Mac OS X,

because of its underlying UNIX. *OpenOffice.org* is also the name of the organization responsible for *OOo* development (www.openoffice.org). *OOo* is touted to be a complete and compatible *MS Office* replacement package. *OOo* has a word processor, spreadsheet program, presentation program, drawing program, formula editor, data charting application, HTML editor, and various file filters. *OOo* is licensed under the GNU General Public License, is free, upgrades are free, support is free (the programmer him/herself may even be the respondent), and can legally be installed on every computer you own.

Installing and Setting Up OpenOffice.org

Considering my knowledge of UNIX to be a bit superficial, I nevertheless reasoned that it couldn't be too hard to give *OOo* a try and I was unlikely to cause irreparable damage. After all, I have reformatted my hard drive to remedy a user-induced problem. So with a curious mind and a stout heart, I downloaded *OOo* 1.0.3, the OS X-version, as a 170 MB disk image (*ooo103darwingm.dmg.gz*) from one of the *OpenOffice.org* mirror sites to a



Figure 1. Portion of the Dock with three *OOo* launchers: *CooOL*, *X11*, and *Start OOo* (top to bottom).

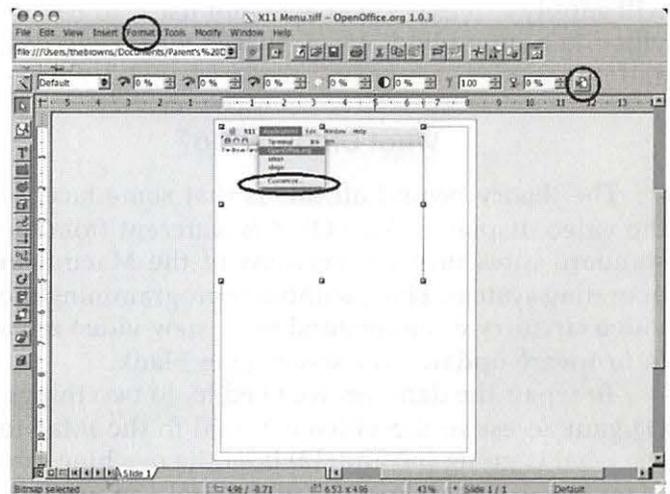


Figure 2. Draw part way through editing a *Grab TIFF* file of the *X11 Application's* drop down menu. The launch "*OOo*" command is highlighted in the menu, the "*Customize*" Applications command is indicated in the ellipse, and both the crop button and format menu item are circled.

PC-formatted ZipDisk using a PC with a fast Internet connection. It still took more than 10 minutes to download. Both *OOo* and Apple Computer Inc.'s *X11* were

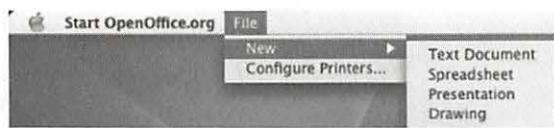


Figure 3. Start OOo about to launch one of the four major OOo applications. Start OOo cannot launch OOo Math (a.k.a. Formula).

respectively disk images and packages and following the few instructions. Uncompressing ooo103darwinm.dmg.gz yielded two additional disk images, both for Start OpenOffice.org (Start OOo), and a Mac OS X launcher for OOo (Start_openoffice.org.dmg and Start_openoffice.org.1.dmg). I picked Start_openoffice.org.dmg and installed it, too. Start OOo appeared in my Applications > OpenOffice.org folder and I dragged the Start OOo icon to my Dock and clicked it (Figure 1). X11 opened up, followed by OOo, and everything worked; just the way a Mac user expects. Since March, OOo has met all my office productivity needs. While I haven't tried every feature of every application in OOo yet, this article is intended to provide an introduction to OOo for Washington Apple Pi's Mac OS X users. This article was written in, and all edited figures were edited with, OOo.

Opening OpenOffice.org

There are at least three ways to launch (or start) OOo. OOo will launch when an OOo or an MS Office file is double clicked. If the Start OOo icon is not on the Dock, it appears regardless of any other OOo launcher on the Dock, and opens X11 (icon also appears on the Dock), OOo, and the file with the appropriate OOo application. It takes 20 seconds to open the first file with OOo, but subsequent files open much faster. Multiple OOo launchers cause no difficulties (Figure 1). X11 can also be used to launch Writer (the OOo word processor application), if OOo was added to the X11 application menu using its Applications > Customize screen (Figure 2). Finally, double clicking on an "official" launcher, such as Start OOo or CooL, can be used. Start OOo is text based but works very well (Figure 3). While I set up and use all of the above, CooL is my favorite because it is a very Aquish launcher (Figure 4). CooL is a freeware launcher that can be downloaded from Boy, Howdy! Software (soma.uchicago.edu/~mabuice/boyhowdy/index).

OOo contains Writer, Calc, Impress, Draw, and Math (a.k.a. Formula). Unlike MS Office, and more like AppleWorks, all of these applications can initiate the others from the "File > New" pull down menu. Each opened file (document, spreadsheet, etc.) will have its own screen and you can toggle between the screens with the

easily installed by double clicking on their

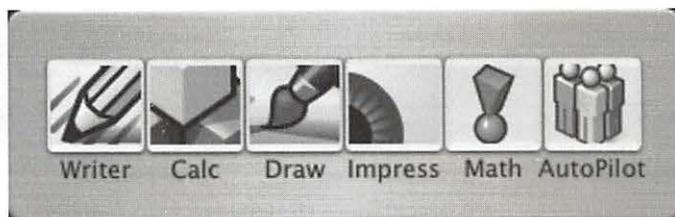


Figure 4. CooL screen, showing all five OOo applications and the Autopilot. All can be launched with the click of a button.

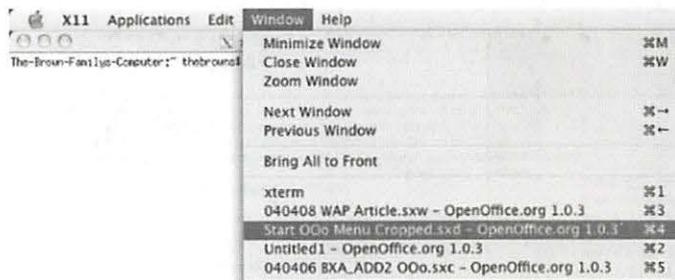


Figure 5. The X11 Window pull down menu. Four OOo windows are identified at the bottom of the menu, one each for Writer, Draw, and Calc and one Untitled.

application's "Window" pull down menu or with the X11 "Window" pull down menu (Figure 5).

Writer

OOo Writer has become my word-processor of choice ever since I installed the program. Its basic functions are in the same locations as found in MS Word, and intermediate- and basic-skill level individuals should not have any "learning curve" issues (Figure 6). Drag-and-drop editing works well and I use it frequently. There is Help (Figure 7) and a Help Agent, which is analogous to the MS paper clip creature. Advanced Word users will need to locate the more esoteric options, which may not be in the expected locations. I recommend that the OOo View (under Tools > Options > OOo > View) be set to display inactive menu items as "grayed-out," in order to assure oneself that an item missing from a menu isn't just inactive while in a particular section of a document (Figure 8). I also set the "Look and Feel" to display as a Macintosh and I did not select Large Buttons. Only Word's grammar checker appears to be missing from OOo's repertoire and I don't miss it.

Writer is expected to convert to and from Word format effortlessly, and it does. I've had no difficulties working with Word 2002 documents. When editing a Word document, Writer will default to Save As > Word document when closing the file. Writer will open double-clicked Word documents, including those that are email attachments, unless the default option is reset

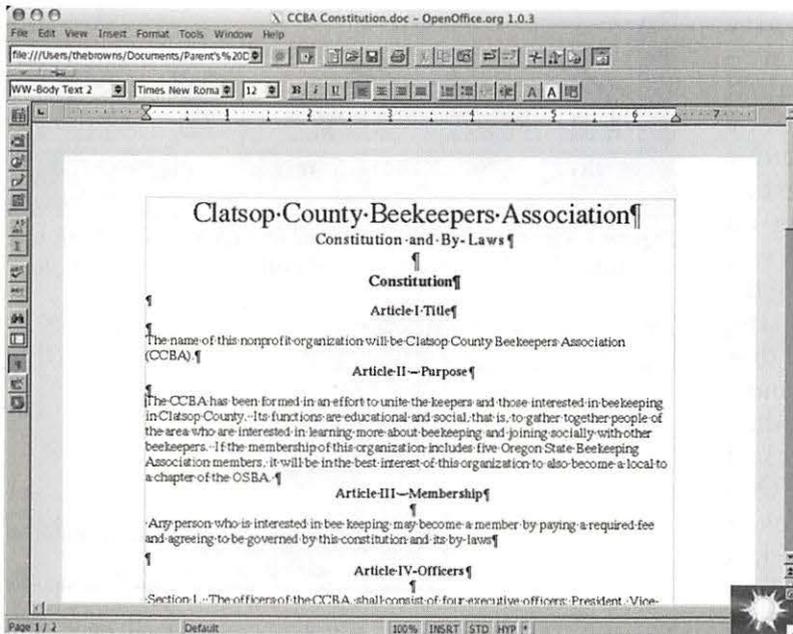


Figure 6. Writer displaying a Word document. Note the Help Agent in the lower right corner.

to prevent this. An interesting available option in *Writer* is the ability to work exclusively in *Word* format by setting the *OOo* default options to always save text documents in *Word*.

OpenOffice.org encourages the use of templates and styles for documents, especially if reformatting of large documents is anticipated. I downloaded 18 *Writer* templates, for FAXes, memos, and business cards, among others, and they worked. There is a default folder for templates, but *OOo* doesn't require you to keep your templates there, just that you inform the program where they are. This is done in the Templates line on the Tools > Options > *OOo* > Paths screen.

I have not been able to substantiate the reported difficulty in copying (or cutting) and pasting text between Mac OS X aquafied program files (e.g. *AppleWorks* or *Mail*) and *Writer* files. However, the operation takes a couple of seconds longer than I'm used to and the first few times I wound up pasting a couple of copies because of impatience. Just remember to switch between using <CMD-c, -v, -x, etc.> in the aqua world and <control-c, -v, -x, etc.> in *X11* world. This should not be difficult for those of us who alternate between PCs at work and Macs at home.

Writer files can be saved as an *OOo* 1.0 Text Document or Template, *Word* 97/2000/XP Document, *Word* 95 Document, *Word* 6.0 Document, RTF, *StarWrite* 5.0/4.0/3.0 Document or Template, Text, Text Encoded, or as a Web Page. Furthermore, one can "Send" the document to "Create a Master Document" or "Create an HTML Document."

"I considered updating MacLink Plus, but I was never ecstatic about the combination with AppleWorks under Mac OS 9.2.2. My enthusiasm for Microsoft (MS) Word has waned since version 6.0 replaced 5.1, so I investigated other alternatives. I looked at, and discarded as unlikely suitors, the icWord / icExcel..."

Printing is an area that is not intuitive, but it is not a problem. There are a slew of UNIX printer drivers available and I downloaded hpoj-0.91.gz for our multifunction HP OfficeJet G55. Before I could install it, I got cold feet. (Did

I mention my UNIX background?) So I read a bit, and then a bit more, about printing in *OOo* from the online OpenOffice.org forums. It turns out that the "Generic Printer" option on the Print screen was the "desktop printer." I did not require UNIX drivers after all. Leave the default alone and printing should work just fine.

Calc

Calc is the *OOo* spreadsheet application and is used for record keeping, creating charts, and manipulating data. Its layout is analogous to that of *MS Excel (XL)* (Figure 9). There should be no learning curve issues for basic or intermediate users, but advanced users may have to search for their favorite tools. The chart wizard is very much like that in *XL*, but it is accessed through the "Insert Object" button, on the left side of the screen, rather than through a Chart Wizard button at the top of the screen. There are fewer chart options available than in *XL*, but everyone I've ever used, and then some, are present. *Calc* opens *XL* 2002 files effortlessly with few obvious display differences. I've noticed that *Calc*-opened *XL* files have slightly shorter line heights, and 3D bar graphs don't have the spaces between their bars. Templates are also available and I downloaded templates for petty cash, portfolio management, repeated measurement—ANOVA, among others.

A *Calc* file can be saved as an *OOo* 1.0 Spreadsheet or Template, Data Interchange Format, dBase, *MS Excel* 97/2000/XP Spreadsheet or Template, *MS Excel* 95 Spreadsheet or Template, *MS Excel* 5.0 Spreadsheet or

Template, *StarCalc* 5.0/4.0/3.0 Spreadsheet or Template, SYLK, Text CSV, or as a Web Page.

Impress

Impress is the application that initially lead me to try *OOo* (Figure 10). I prepare between two and six *PowerPoint* presentations a year for my work. Previously, I was limited to preparing only outlines or draft text at home, but with *Impress* I work seamlessly at home on the *PowerPoint* 2002 files from work that I don't have to re-edit when they return to work. *Impress* handles much like *PowerPoint* There is a *PowerPoint*-like AutoPilot to step you through the initial decisions to produce an *Impress* presentation and there are as many free templates as you care to download. I downloaded 27 different *Impress* templates, which can be edited, or you can make your own templates. My daughter's science presentation (recall my parenting crisis) was derived from her *Keynote* presentation that had been converted to *PowerPoint* and was subsequently reformatted with *Impress*.

The only obvious difficulty I found in converting files was that *PowerPoint* 2002 did not display the TIFF graphics contained in the *Impress*-created *PowerPoint* slides. When the TIFF file was replaced with a JPEG file, *PowerPoint* displayed the graphic properly. However, I note that I could not insert the same TIFF files directly into a *PowerPoint* slide either.

Printed slide or note pages are easily obtained and are very much like those from *PowerPoint*. You have more flexibility when printing handouts than in *PowerPoint*, but it requires more effort, especially if you prefer handouts with three slides per page opposite lines for note taking.

An *Impress* file can be saved as an *OOo* 1.0 Presentation or Template, *MS PowerPoint* 97/2000/XP Presentation or Template, *OOo* 1.0 Drawing, *StarDraw* 5.0/3.0 Presentation, or *StarImpress* 5.0/4.0 Presentation or Template. Additionally, *Impress* may be "exported" in any of the formats that *Draw* files may be exported (see below).

Draw

Draw is used to create vector graphics or edit your imported graphics. All the expected tools are available in the tool bars for adding lines, arrows, geographic and free-form shapes, text, and rotation, among others, to either created or imported images. I used *Draw* to crop

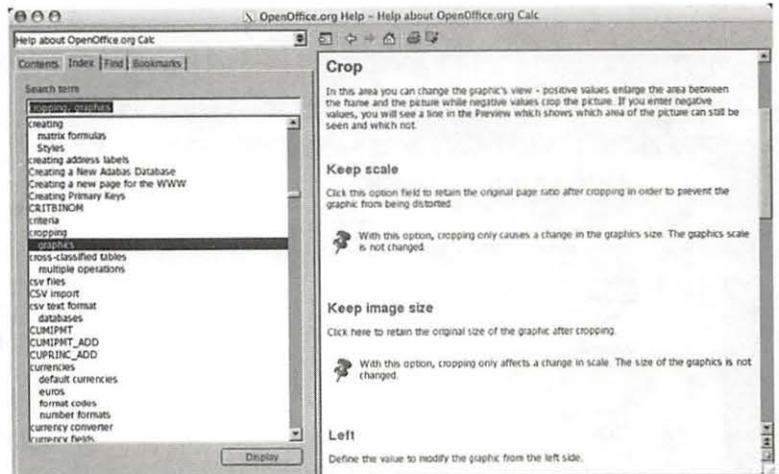


Figure 7. OOo's Help Screen on Cropping.

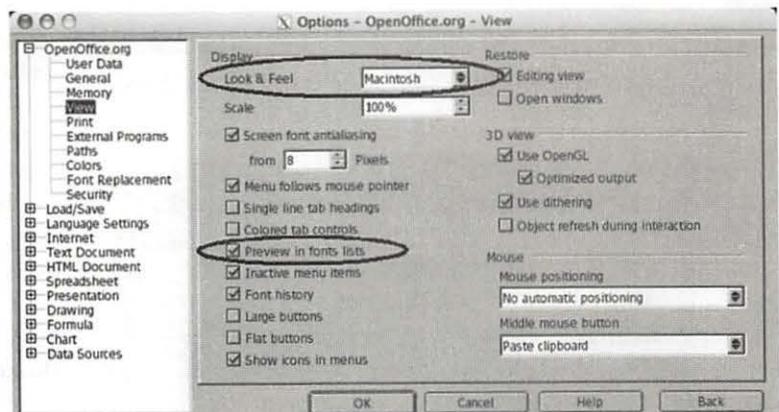


Figure 8. OOo's Tools > Options > OOo > View screen showing that "Look and Feel" was set to "Macintosh" and "Inactive menu items" was selected.

and edit some of the TIFF screen shots from *Grab* for this article (Figure 2). The TIFF files were inserted as graphics into a *Draw* file, manipulated, and either saved in the *Draw* format (XML) for exporting to TIFF later or exported directly as a TIFF file. The crop tool is visible when the inserted graphic is activated and was used extensively to prepare figures for this article. The size of the page is modified using the Format > Page screen from the pull down menu.

Draw files can be saved in a few formats; specifically as an *OOo* 1.0 Drawing or Template or as a *StarDraw* 5.0/3.0 or Template. Additionally, any *Draw* file can be "exported" as a Web Page, Windows Bitmap (BMP), Enhanced Metafile (EMF), Encapsulated PostScript (EPS), Graphics Interchange Format (GIF), Joint Photographic Experts Group (JPEG), OS/2 Metafile (MET), Portable Bitmap (PBM), Mac Pict (PCT), Portable Greymap (PGM), Portable Network Graphic (PNG), Portable Pixelmap (PPM), SunRaster Image

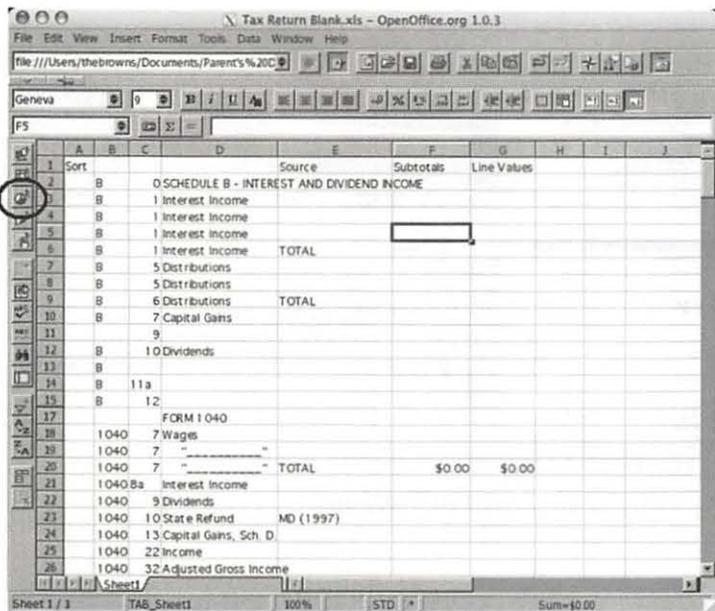


Figure 9. Calc displaying an XL file. The Insert Object button is circled.

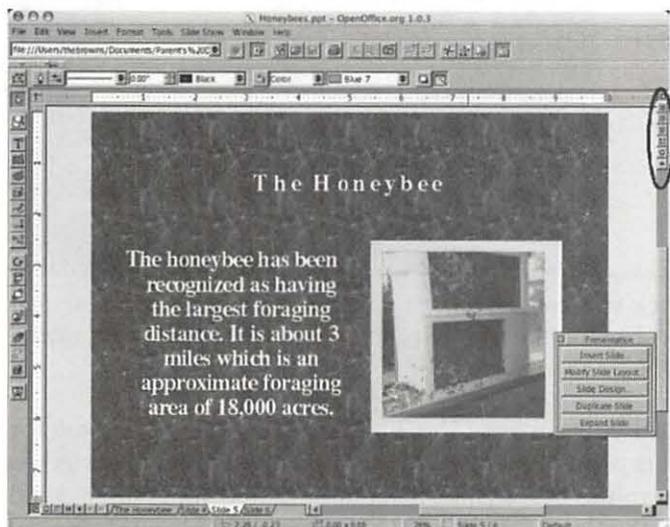


Figure 10. Impress with a PowerPoint file. Buttons in the ellipse in the upper right are for displaying the drawing view, outline, slide view (slide sorter), notes, handout, and slide show.

(RAS), Scalable Vector Graphics (SVG), StarView Metafile (SVM), Tagged Image File Format (TIFF), Windows Metafile (WMF), or as an X PixMap (XPM).

Math (a.k.a. Formula)

Math is a specialized OOo application for producing visually correct mathematical formulas for insertion into other OOo documents (Figure 11). I have only given Math a cursory look to date but individuals in mathematically intense technical fields should appreciate this application. Math files can be saved as OOo 1.0 Formula,

StarMath 5.0/4.0/3.0, or Math ML 1.01. Microsoft's Equation Editor also uses the Math ML format.

What is XML?

OpenOffice.org applications use XML-based file formats so that the office suite will run on all major platforms. XML, which stands for Extensible Markup Language, can be and is used to store any kind of structured information and allows the information to be transferred between different computing systems. Microsoft's limited support for XML is found only in XL 2002, and not in either Word 2002, nor PowerPoint 2002.

OpenOffice.org Updates

Currently, OOo 1.1 is undergoing final testing (Tech Preview stage) before being declared a "stable release" and ready for the general open-source software users. However, if you have any developer skills or simply must be on the cutting edge, OOo 1.1 can be obtained and built. Building is significantly more involved than installing. If you are nevertheless so inclined, please refer to OpenOffice.org for details (http://porting.openoffice.org/mac/build_11_X11.html). A 171-page shareware manual, *Taming OpenOffice.org Writer 1.1*, by Jean Hollis Weber, is available for \$10 (www.taming-openoffice-org.com). Because of the complexities of the Mac OS X interface, an aqua version of OOo is not expected until 2006, sometime after OOo 2.0 is released.

Sources for OOo software

OOo 1.0.3 can be obtained from at least three sources. Obviously, OOo can be downloaded from OpenOffice.org (http://porting.www.openoffice.org/mac/ooo-osx_downloads.html) and you can pick and choose to download additional free templates at OO Extras (<http://ooextras.sourceforge.net/>). OOo 1.0.3 and templates are also available on the CD which comes with the third party manual, *OpenOffice.org 1.0 Resource Kit*, by Solveig Haugland and Floyd Jones (Sun Microsystems Press / Prentis Hall PTR, Upper Saddle River, NJ. 2003. ISBN 0-13-140745-7). I bought this \$40 book at Borders Bookstore just to have a manual, but I will use the included CD should I ever have to reinstall OOo. Alternatively, an "enhanced" OOo 1.0.3 is available in *Office Applications*; a commercial package from BSD Mall for \$50; \$40 on sale (<http://mall.daemonnews.org/officeapps2.html>).

Forum Support

www.ooodocs.org
ooodocs.sourceforge.net
trinity.neooffice.org ■

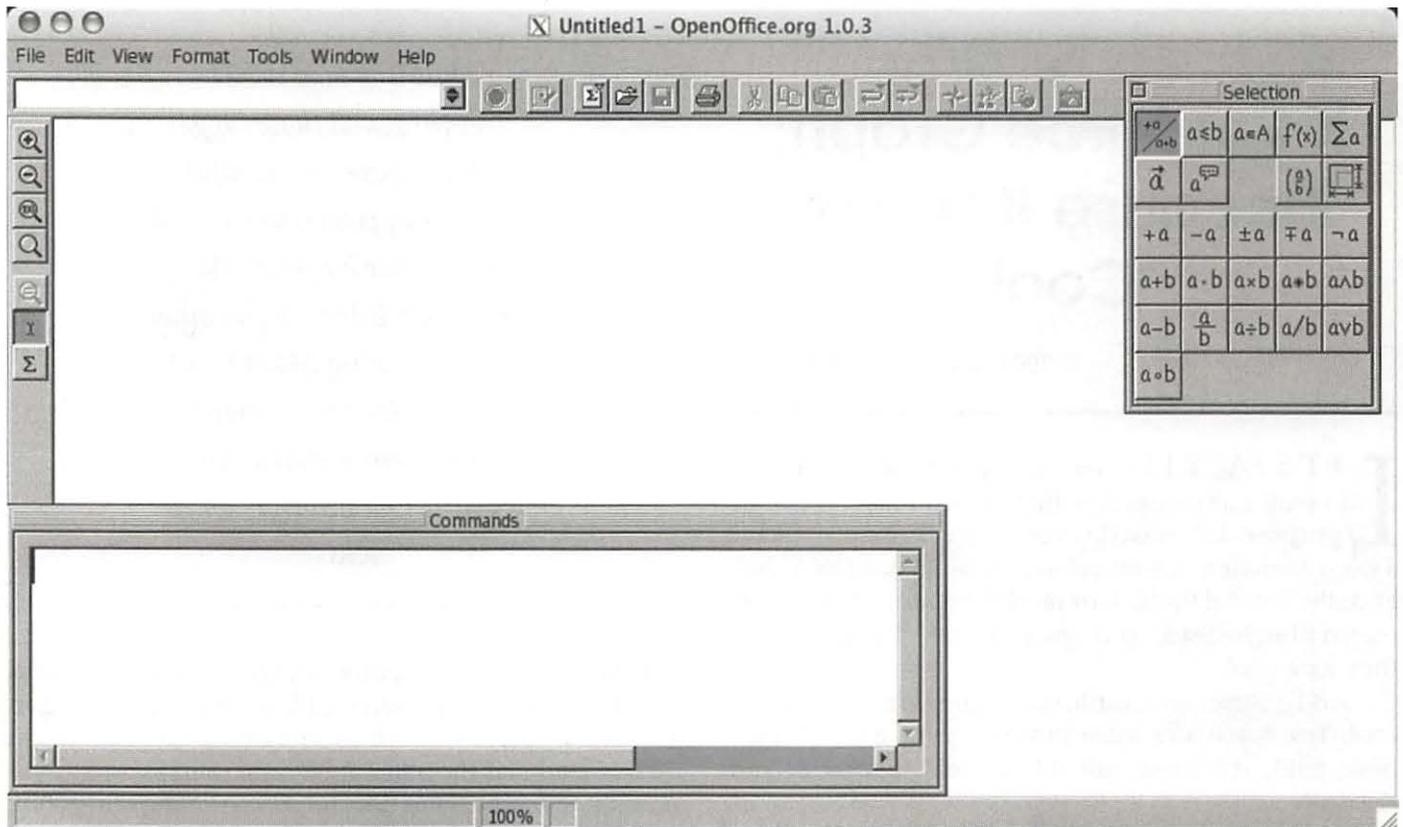


Figure 11. Math (a.k.a Formula) screen shot.



Despite the large tangle of cables, these laptops were running on battery power at the Washington Apple Pi 2004 Picnic.

(Photo by Richard Sanderson, taken with a Nikon D-100 digital camera.)

X Resource Graph: Because It Looks Cool

© 2004 Lawrence I. Charters

LET'S FACE IT: there are a great many things we do with our computers that have almost no useful purpose. On most days of the week, we don't have a need to match orbital velocities, sequence DNA, balance the federal budget, or render a feature-length animated film. Instead, we do many things simply because they look cool.

And X Resource Graph, better known as XRG, looks cool. Yes, it actually has a purpose, even a useful purpose, but that is irrelevant: it fairly reeks coolness. And it is free.

Written by Mike Piatek-Jimenez, XRG is a system monitor. In simple terms, it reports back, using text and graphics, on the performance of your Macintosh. Such applications first gained popularity in the world of "big" UNIX boxes in the 1990s. UNIX system administrators loved to have system monitors running in an X-Window window, showing their powerful 8 and 12 MHz workstations doing world-changing things and displaying this awesome power with some crisp, impressive-looking charts and numbers.

But it is now the 21st century, and those "big" UNIX boxes are landfill, eclipsed in power, utility and ease of use by your iMac. And your iMac (or any other Mac running Mac OS X) can produce even *crisper, more* impressive-looking charts and numbers with XRG.

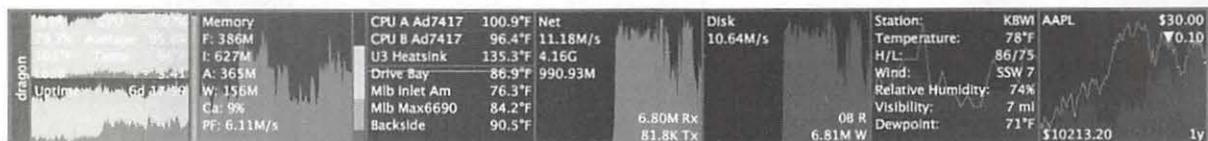
What kind of charts and numbers? Let's take a look at the first screen shot, XRGquiet. XRG can be displayed vertically (the norm) or horizontally, and for purposes of illustration we've displayed it horizontally, and several times larger than normal. On the extreme left edge

"But it is now the 21st century, and those "big" UNIX boxes are landfill, eclipsed in power, utility and ease of use by your iMac. And your iMac (or any other Mac running Mac OS X) can produce even crisper, more impressive-looking charts and numbers with XRG."

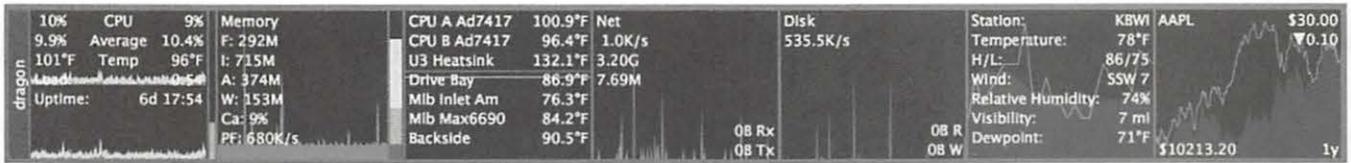
is the name of the computer, "dragon" in this case, and next to it is a panel showing CPU performance. Dragon has two CPUs, neither one doing much, one running at 10% of load and the other at 9%, and their average load is about the same. The CPUs are also running fairly cool, one at 101°F and the other at 96°F. Another load statistic is obliterated by one of the two performance graphics, and the last row of text shows Dragon has been up for six days, seventeen hours and fifty-four minutes.

The other panels show memory usage, various temperatures from the CPUs, heat sinks, fans and other parts with sensors (these vary depending on model of the Mac, with older Macs having fewer sensors), network traffic, disk usage (not amount of space, but the amount of read-write activity), and battery state (available only on laptops).

The final two panels do *not* have a thing to do with the performance of your Mac. Instead, if you have an active Internet connection, the first panel shows the current weather (from a user-selectable reporting station), and the second shows the Dow stock average and the current price of a stock of your choice, in this case Apple (APPL). Just as the other panels plot trends over time, the weather panel plots temperature and humid-



XRGbusy: When your Mac is busy – and this one is very busy – the graphs tend to obscure the text. In this instance, both CPUs are very active, memory is very busy, the various temperature sensors indicate everything is running nice and cool, and there is considerable network traffic and disk activity.



XRGquiet: With the exception of the last two panels displaying weather and stock activity, X Resource Graph indicates this Mac isn't doing much of anything. The panels, from left to right, are for the CPU, memory, temperatures from various sensors in the computer, network activity, disk activity, the weather at Baltimore-Washington International Airport (you can pick some other location), and the Dow Jones average plus Apple stock price.

ity and the stock market panel plots the Dow average over the last year and the yearly performance of your selected stock.

XRG allows you to select what information you want to display, and has customized "themes" allowing you to display that information in a wide variety of colors and font sizes. You can turn off any given display in almost any combination, you can display the graphs in dramatic colors that cry out for attention or that meekly fade into the background, and you can, as mentioned, vary the orientation and size.

When things get busy, as they are in the second illustration, XRGbusy, this little application is far more colorful. And far more useful: your coworkers, relatives, loved ones, and complete strangers will be impressed. It doesn't make a bit of difference what your Mac is doing: the graphs show that it is working hard and, presumably, so are you.

Yes, it is useful. But beyond that, almost in spite of that, it is, simply: cool.

References:

You can download X Resource Graph from:

<http://www.starcoder.com/xrg/>

Be sure and check out the alternate "themes" for XRG:

http://www.starcoder.com/xrg/themes/sub_main.shtml ■



Pi Picnic: Richard Sanderson, the unofficial photographer at many Pi events, adjusts his Nikon D-100 digital camera. (Photo by David Harris, taken with a Minolta DiMAGE X digital camera.)

A Quick Look at Quicksilver

© 2004 Mike Mellor

QUICKSILVER <http://blacktree.com/apps/quicksilver/> is a free application launcher for Panther that I think is great! It an application launcher that makes it much easier to navigate around my computer, using a few keystrokes instead of "mousing" through Finder.

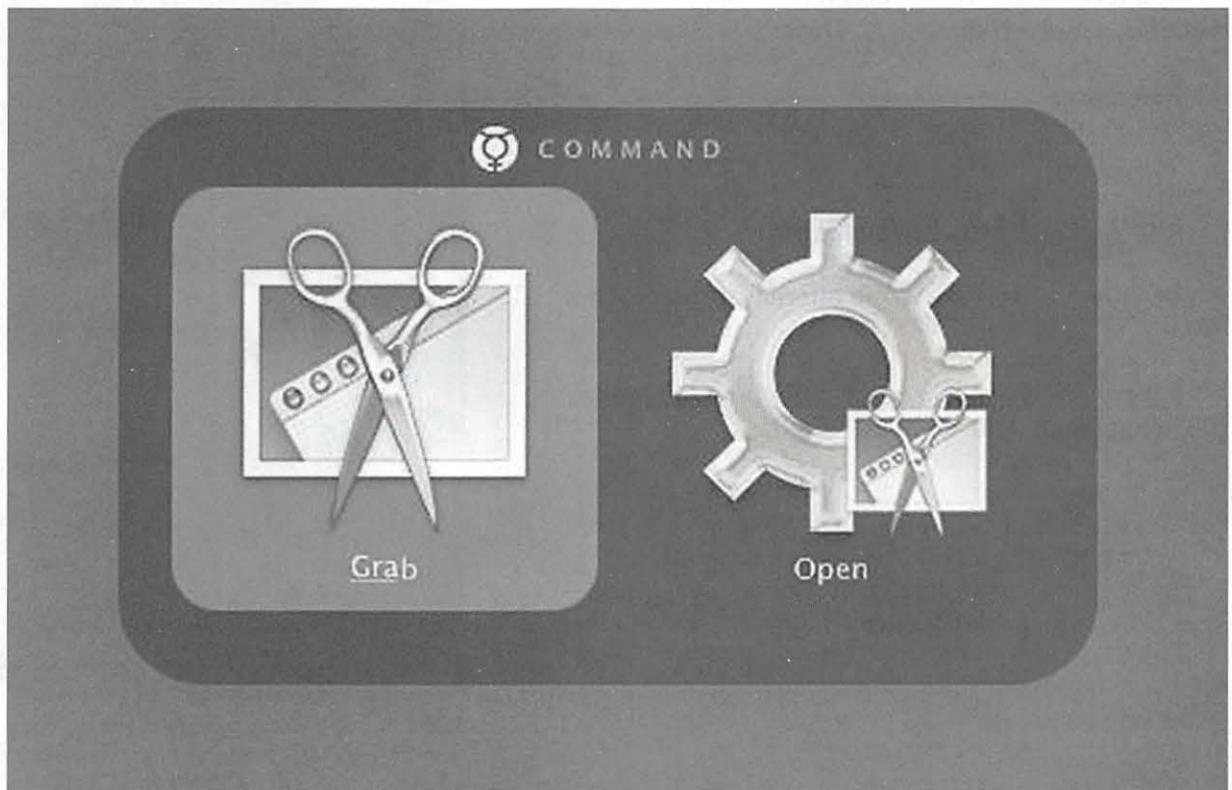
I am always looking for new ways to increase my productivity (find stuff faster). I have tried using a "My Applications" folder in the Dock, as well as menu bar application such as "Rocket Launcher" but they never really met with my needs. I want a way to get at the applications I want without having to manually reconfigure it every time I add a new app, and since I spend most of my Mac time with an iBook I want something that can be keyboard driven. Quicksilver meets both of these requirements.

Enough about me though. Here's a rundown on Quicksilver. It is accessed by a User defined keystroke (Command-Space). This brings up the Quicksilver interface (as a small window; a box on the menu bar; or as shown, in a bezel).

See below Quicksilver in bezel mode, showing a selected application (Grab), and its default action (launch)

Then you simply type in the first few letters, or a few letters from the middle, or a couple of letters from somewhere in the application or document's name. Quicksilver, as the name implies, rapidly produces a list of possible solutions to your query. For me, "ENT" will bring Microsoft Entourage to the top of the list, and hitting return will activate the application. Typing "MSNT" brings up a few Mac OS X Hints web pages that I have saved as PDF's, and then Entourage is the fifth choice. In addition to setting which folders to search, you can also select an application to be the default selection for a certain keystroke, so I could set "MSNT" to select Entourage. Additionally, the search engine learns from your selections, so it would learn that "MSNT" is a search for Entourage on its own.

I have only scratched the surface of Quicksilver's functionality here, I recommend downloading it and trying it for a couple of weeks; it may change how you work with your Mac! ■



iView MediaPro in View

Added Tools and Power Highlight 2.5 Upgrade

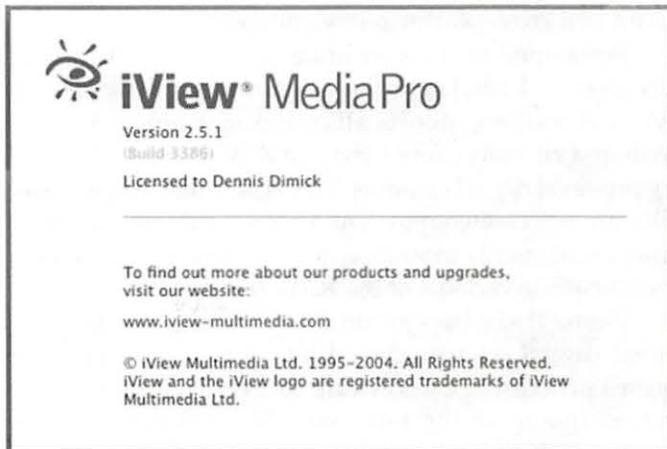
by Dennis R. Dimick

IF YOU TAKE pictures and shoot only film you're part of a rapidly shrinking minority. It's been three years since I bought, shot, or processed a roll of film, but I'm taking more pictures than ever. If, like me, you shoot digitally now, you already use, or need, some sort of image management program to track and sort your expanding collection of digital pictures.

One program I've used for several years is an ever-improving tool called *iView MediaPro*. Initially a simple tool that ran only on Macs for cataloging image scans and other graphics files, *iView MediaPro* has recently seen a couple of major makeovers, and now at version 2.5.1 has become a "Swiss Army Knife" of image browsing, organizing, processing and presenting.

British vendor iView Multimedia Ltd. last year also introduced a less-expensive (\$50) consumer version called *iView Media*. This lower-price option supports fewer file formats (e.g., no RAW or PDF) and fewer tools.

At \$199 for *iView MediaPro*, and \$99 for upgrades from version 1.x, *iView MediaPro* is not for mere digital



About iView: The program comes from a small British firm. Price for iView MediaPro 2.51 is \$199, with upgrades from version 1.x for \$99, and updates from 2.0 are free. A reduced-feature option, iView Media, sells for \$50. Both versions work on the Mac and Windows.

dabblers. Its feature set and automation capability has grown considerably since I began using it at version 1.1. Now available both for Mac and Windows, *iView MediaPro* can create a simplified image workflow if you



Bright and Smiling: iView MediaPro's new image editor tool palette offers a range of image improvement options, including cropping, color balance, red-eye removal, sharpen edges, resize, and brightness and contrast, seen here.

work in a cross-platform environment.

Positioned now as an image management tool for professional photographers, editors, and designers, *iView MediaPro* supports all common graphics file formats and virtually every variant of RAW images produced by pro-level digital cameras. This is no small feat, as RAW files are not created equal, and digital camera manufacturers continually introduce new models that write new incompatible variants of the RAW file format.

(Some RAW background: RAW is the raw unprocessed digital data produced by camera sensors. It requires processing by software to create a visible, color-correct image, in the same way film requires processing to produce a negative or slide. If you shoot JPEG files with digital cameras, the processing occurs in camera and no further "developing" is needed to see the camera images.)

Viewing Catalog Creation

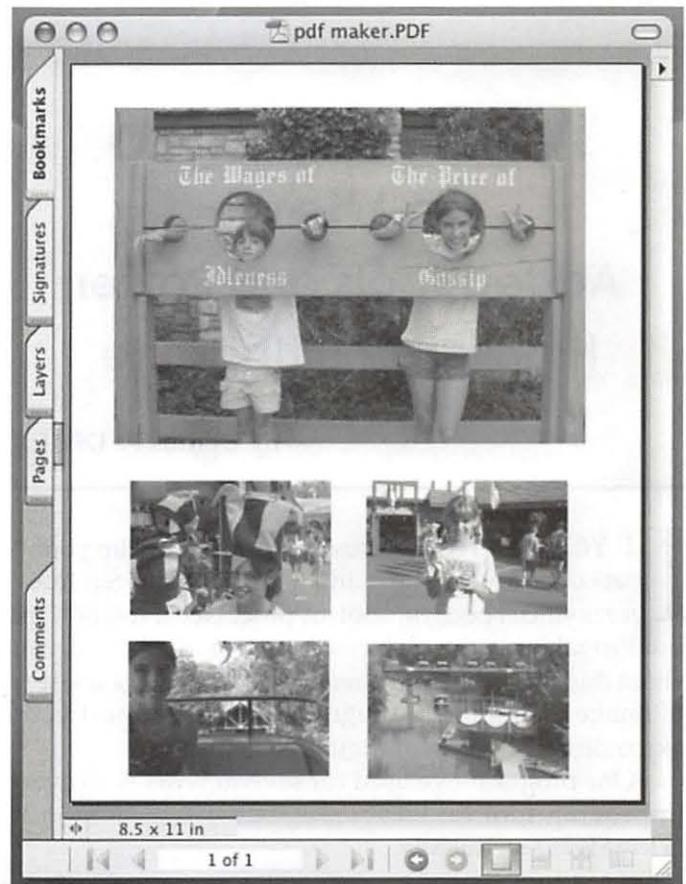
You can build a catalog of up to 128,000 items in *iView MediaPro* (8,000 in *iView Media*) by drag-and-drop: drop a folder of images, movies, PDF files, fonts, sounds, or other graphics onto the *iView* application icon or an alias in the OS X dock. You can also import images directly from digital camera memory cards, files and folders, or Web site URLs, and view catalogs in one of three modes: list, thumbnail, or media.

I use thumbnail and media views, which let me look at a screen full of resizable images in thumbnail view, or one image at a time full screen in media view. *iView* has a neat image selection feature that assigns colors to keyboard number keys, and as you review images you can place them in up to nine different "select" groups by color. This tool makes easy work of distilling many images to a few select ones, and allows you to create a variety of subgroups from a catalog.

Added Attractions in View

iView supports existing "metadata" information (IPTC and EXIF) from imported digital camera files, and you can customize this data with keywords, captions, photographer name, location shot, and other attributes written into the files themselves. These keyword and annotation tools can facilitate searching and sorting your image collections.

iView also offers a drag-and-drop method for annotating images: select a group of images and drag them onto a keyword in the "Organize" panel and all assets will pick up that annotation. You can also batch rename images with custom filenames and sequential image numbers.



Rudimentary Acrobats: iView Media Pro now includes a basic tool for creating image layouts for export to Adobe's Acrobat PDF format. This letter-size page is seen here in Adobe's Acrobat 6.0 program after export from iView MediaPro.

Conversion and Image Tools

Other new additions include tools for batch conversion of images, sounds, and movies from one format to another. If you have a digital camera that produces RAW files, *iView* can batch convert them (at least most RAW formats) to JPEG files of a specific size and quality. I recently needed to prepare a presentation of magazine page layouts that all existed as PDF files, and *iView* made quick work of creating screen-resolution JPEGs.

If your QuickTime movies must be converted to MPEG, *iView* is your tool, and the same holds for sound file conversions. Since Apple's QuickTime media software provides the underpinning for *iView's* media conversion skills, in general whatever QuickTime can import and export, *iView* can too.

Further, *iView* now offers basic image adjustment tools. Though no match for Adobe Photoshop, these tools let you batch adjust color balance, brightness, cropping, sharpness, contrast, and red-eye removal. *iView* also offers version control so you can make changes to

copies and not the original images.

The Show Goes On

Where *iView* gets fancy is with its presentation skills. You can produce slide shows with one, two, four, or up to 16 images on screen at once, you can use an array of custom transitions, and you can integrate soundtracks for a movie-like experience. If your musical slide show is such a masterpiece you'd like to convert the whole thing, with sound, to a QuickTime movie, that power is within *iView*'s reach.

If you want to convert your slide show into a Web site, *iView* offers several pre-built templates so you can create Web pages from your image collections, with a contact sheet of thumbnail previews linking to variable size larger images. You can also print your catalogs with custom page setup (e.g., 2x2, 4x3, 1x2 images per page) and a new PDF export tool lets you create custom page layouts of images as PDF files. It's not the most powerful page layout tool, and it takes some time getting used to, but it's a lot cheaper than Photoshop's custom photo package tools.

(You can see some examples of what *iView*'s Web tools can do on the Pi Web site, using photos from the Pi's June picnic:

<http://www.wap.org/events/june2004/>)

iView also lets you backup catalogs and images to CD, and a new free *iView* Catalog Reader lets you publish cataloged disks viewable by others who don't own *iView*. The program also supports AppleScript for creating customized workflows, and one day I'll learn how to leverage that. In truth, this program offers so many features I'll probably spend years trying to learn and use them to their full potential, and by then a newer version with more neat



Close Contact: If you've ever printed contact sheets in the photo lab, iView MediaPro offers a customizable contact sheet creation tool that fairly passes for the digital equivalent of those old days in the photo soup. You can choose how many images appear on each page. Here 2x3 images appear.



Label Sets and Info: iView's media window shows a single image for review. At left is the information pane, which shows image data for each picture in a catalog. At center is the "assign label" pop-up menu, which lets you create subsets of a catalog by assigning label colors to your keyboard's number keys, which allows sorting catalogs in up to nine subgroups of "selects" during editing.

tricks will arrive.

What's the Big Deal?

Once in a great while a program comes along that makes life easier, changes the way you do your work, and is a joy to use. These are all apt descriptions for my relation to *iView MediaPro*.

Colleagues have had some trouble getting *iView MediaPro* to recognize metadata from RAW images edited via Photoshop CS Camera Raw, but that has been mostly solved with updates to Photoshop's plugin (to 2.2) and with recent, and prompt, updates to *iView MediaPro*.

I've also heard that some who still use Mac OS 9 find occasional instability in *iView*. I can only say your best bet these days is to move Mac to Mac OS X, as it's an operating system optimized for digital photography.

If you have a recent model Mac, no doubt you've been using Apple's iPhoto application. For many, iPhoto works fine, and maybe it's all you'll ever need. But if you find yourself shooting digital images in the RAW format, or if your image collections are growing rapidly, or you have modest multimedia authoring dreams, take a look at *iView MediaPro*. It's worth it.

A 21-day preview version is available from *iView's* Web site, and if you like what you see, you can buy a serial number at the Web site. Lots of documentation and descriptive information is there, including a chart that shows feature differences between *iView MediaPro* and its junior sibling *iView Media*. ■

iView MediaPro 2.5

For Mac and Windows

Mac OS 9.1 and 10.x.

Price \$199, upgrades from version 1.x
\$ 99

Update from version 2.0x is free.

iView Media

\$ 50

<http://www.iview-multimedia.com>

Pi member Dennis Dimick has been investigating graphics, QuickTime, and related topics for the *Journal* for more than a decade.

"The Computer ate my Ballot!" —Experiences of an Electronic Voting Machine Technician

by John Barnes©2004

AFTER HEARING a lot of agitation over the insecurity of electronic voting systems from people whom I consider to be Information Technology Luddites, I decided to sign up as a voting machine support technician in Montgomery County, Maryland for the primary election in March of 2004. This article reflects my experiences in that activity and demonstrates that much of the furor largely misses the mark.

The Computer Science Community

Some computer scientists have been having a field day exploring the ways of modern electronic voting machines, especially those made by Diebold Election Systems. Dr. Avi Rubin of Johns Hopkins University's Information Security Institute has been particularly active in publishing in this field. Dr. Rubin has a web site at:

<http://www.avirubin.com/vote>

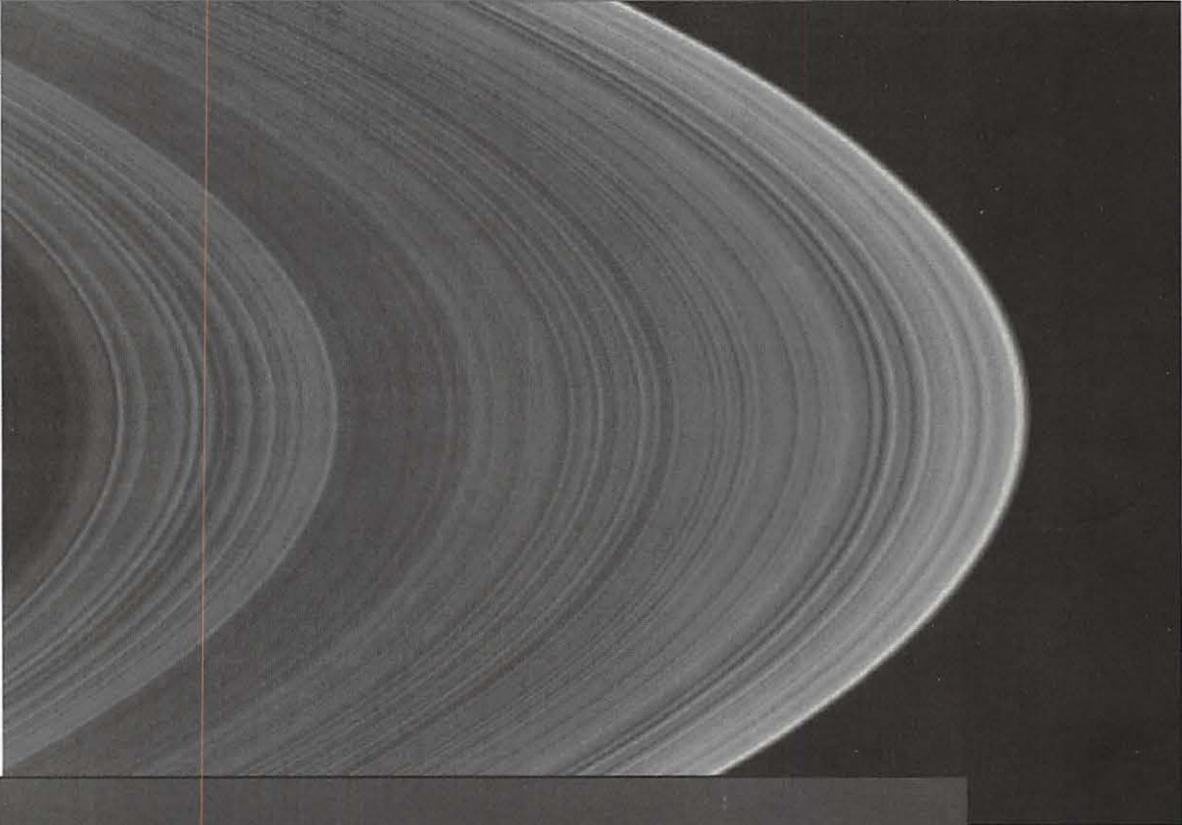
that details many of his ideas. The occasional consulting contract and publication have undoubtedly been good leavening for these folks.

The early work in this area conjured up a number of scenarios by which the machines could be compromised. This has led to a movement that would allow each voter in an election to view a paper record that the voter could use to affirm that the ballot that they cast properly reflects their wishes. David Pogue's "Reconsidering Electronic Voting" column of July 15th, 2004 examines some, but by no means all, of the issues. Providing voter-verifiable paper receipts (VPRs) would require massive reengineering and remanufacturing of machinery, since Diebold alone has more than 75,000 units in the field.

Ignoring for the moment the question of whether VPRs actually address the problems, let's turn our attention to the hacker scenarios. Forging the "smart cards" that the voter uses to authenticate access to the machine is perhaps the most plausible method, but even if a smart card could be forged, anyone trying to vote multiple times would be easily observed by the polling place workers. There is also a safeguard in which a running tally is kept on a sepa-

(continued page 46)

Your Mac Can Sail
Rings Around the
Other Guys...



With Help From
Washington
Apple Pi

(continued from page 44)

rate sheet of paper to determine how many ballots have been cast at each voting station.

The other methods would require insider access to the machines and the software. Given the number of machines that would have to be compromised and the complications of accessing them and tampering with them, this could only be accomplished by a massive conspiracy.

Of course, the most serious flaw is that the operating system for these terminals is a variant of Windows, which means that they dare not be connected to the



The 2004 Pi Picnic was a time for cooking hot dogs. (Photo taken by Bob Mulligan with an Olympus E-20 digital camera.)

Internet. The data is stored on a PCMCIA card that is removed from the machine that wrote it to a master machine that tallies the results and uploads them via a dialup connection to the central tabulating facility.

The Real World

My concerns focus on far simpler matters. The machines are poorly engineered from the mechanical and electrical standpoint. Each machine weighs 60 or more lbs. It sits on four spindly telescoping legs resembling those of a cheap camera tripod. This does not provide a stable platform for inserting the smart card or pushing the touch screen, especially for people who may be a little over energetic about these matters.

The machines come on rolling carts, 10 machines to a cart. The machines have to be unpacked and set up the night before the election in order to be sure that their batteries are charged for use the next day. Each machine has a small plastic seal that has to be broken in order to open the case and erect the screen. Unfortunately the only indications that the machine is properly powered up are hidden when the lid is shut. There is not so much as a glowing LED to indicate that the machine is charging its battery.

The poll workers have from 6 am to 7 am on the morning of the election to go through an elaborate sequence of steps required to open the polls. The process is further complicated by the fact that a Democrat and a Republican Chief Judge must oversee and sign off on each step. The schedule for this is brutal. One product of this process is a set of printed tapes that show the starting vote count in each voting terminal.

During the day the election judges have ample opportunity to watch voters and to see that they are following proper procedures. As each voter departs the booth, a check mark is added to the tally for that booth, thus ensuring a record of the number of people who voted from that terminal. The idea that someone could alter a smart card or forge one and bring it into the voting place is fanciful.

At the End of the Day

The biggest fiasco in my experience as a voting machine technician occurred at the end of the day. It was necessary to "close" the election on each terminal and get the results back to the central tabulating station in 45 minutes. Given the complexity of the procedures, this was unrealistic to begin with. Tamper tape seals had to be examined, signed for, and logged. Two copies of the

tallies had to run on the thermal printers in each terminal. These had to be snipped out, examined, signed, and packaged for shipment. PCMCIA cards had to be removed for uploading to the master station. This put a lot of pressure on people who, to put it mildly, had outgrown that sort of thing.

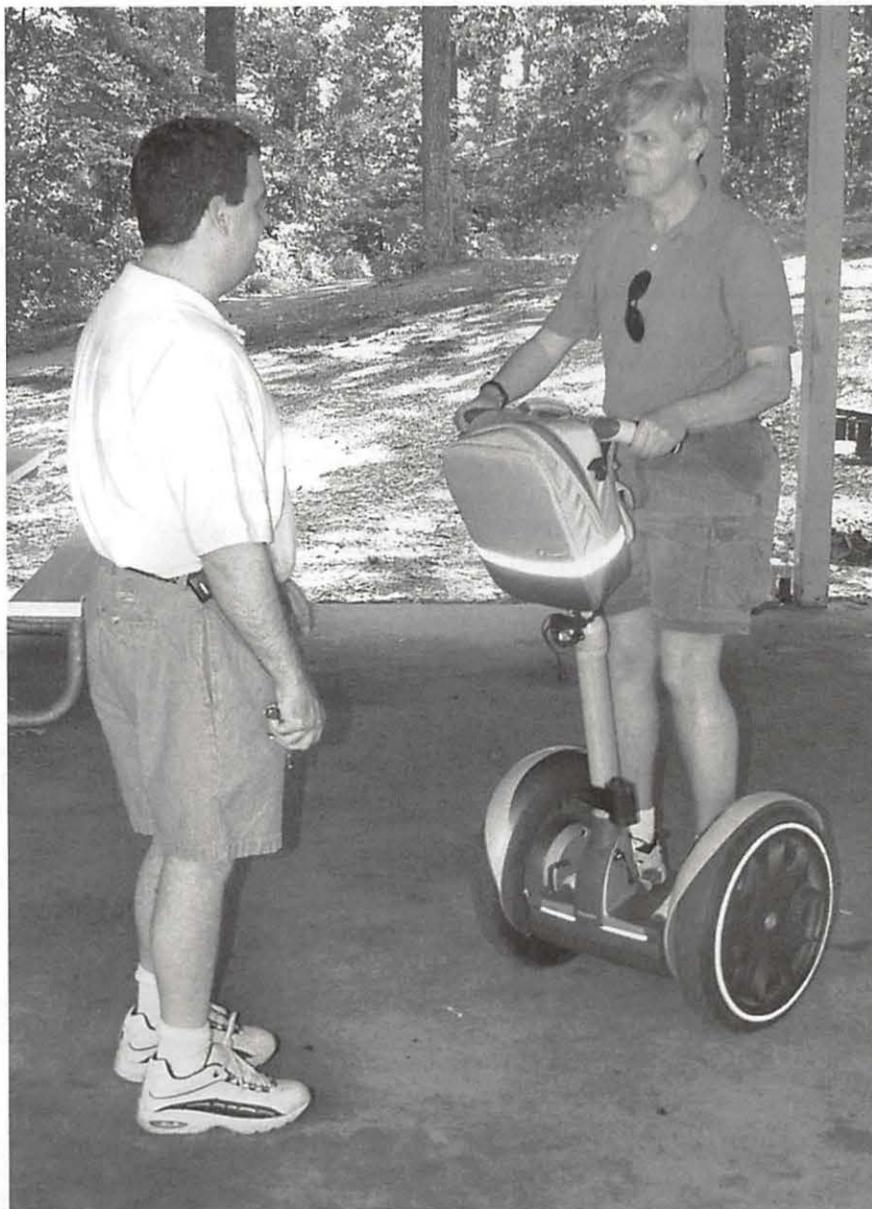
The first card, the one in the master machine, seemed to tally OK. The second one to be inserted yielded a message "Card unreadable, do you want to reformat the card?" My response was naturally "No." Ok, maybe that was one bad card. When the same thing repeated itself with the third and fourth cards, I got the chief judge to call the support center. "Pack it up and ship it in." was the reply.

Now the paper tapes looked fine and could undoubtedly be used to provide an accurate tally, but this was a disconcerting experience nonetheless.

The "computer scientists" (I have always maintained that "Computer Science" is an oxymoron and that this activity is instead a branch of witchcraft rather than a scientific discipline) had evidently not foreseen anything as simple as mechanical or electronic failure. Murphy's law, however, tells us that "Anything That Can Go Wrong Will Go Wrong."

It seems to me that the ballot box that Jon Thomason set up for the recent Pi election overcomes many of the objections to the Diebold systems. It would be a lot cheaper and much more manageable to set up a polling place with a pair of PowerBooks as redundant Web servers and have them serve a collection of 3COM Audrey terminals with software burnt into CompactFlash memory cards. Each Audrey has two USB ports; one could serve the Ethernet connection and the other a very cheap printer.

The whole kit for 20 or so terminals could be stowed in a fat suitcase with rollers. A secure, encrypted Internet connection could be used to upload results to the tabulating site. Of course, such a simple Open Source solution would deprive certain well-connected contractors of access to the public purse and is therefore unlikely to see the light of day.



The 2004 Pi Picnic was a time for learning how to ride a Segway. (Photo taken by Bob Mulligan with an Olympus E-20 digital camera. This is something of a mystery, since the photo is of Bob Mulligan.)

Meanwhile the public can carry on with all of its paranoid fantasies about elections being stolen without ever knowing the real truth. I look forward to Election Day 2004. Primary Day 2004 was nowhere near a real taste of what chaos could reign when the system gets really stressed. ■

Case Study of a Flash Site

By Sheri German

MANY OF YOU who are about to read this probably have mixed feelings about Flash. You've probably been held hostage to the ever-popular animated Flash intro. How fast do you click on the "skip intro" button? Even if it's mildly entertaining the first time, it is surely just a time-waster the second. Flash sites often make me recall the old adage: "The first time it's funny, the second time it's boring, and the third time it's annoying."

Is there ever a good reason to use Flash? Can it overcome the problems of accessibility, search engine optimization, easy updating, and interminable download times? I hope to make a good case for the (occasional) good decision to use Flash, while revealing how I constructed just such a site with maximum efficiency and user-friendliness as my goals.

Now you're probably saying to yourself, "Oh, there is a good reason to use Flash?" I believe its use is appropriate for any site where multimedia display is not a gratuitous annoyance, but rather the central *content* of the site. Copy one of the following URLs into your browser:

<http://www.vladimirhorowitzmusic.com/>
<http://www.legacyrecordings.com/herbiehancock/>
<http://perfectstorm.warnerbros.com/>
<http://www.lordoftherings.net/>

You'll quickly see that the use of Flash in these sites is intended to engage the visitor in the immersive experience of music and movies. There are many side benefits to the use of Flash, such as pixel-perfect layouts and embedded fonts, but we're going to focus on the multimedia aspect in this article.

The Mission

When a local classical piano trio approached me about creating a Flash version of their site, they pointed to

Midori (<http://www.midoriviolin.com>) and Joshua Bell (<http://www.joshuabell.com>) as the models they wanted to emulate. They requested the following features for their site:

- An MP3 player with sample sound clips from their CDs that could play continuously while the visitor paged through the site;
- A photo gallery of pictures of the group, as well as the individual members;
- Video clips from a recent concert;
- A concert schedule that they could update themselves;
- Biographies of each member, as well as a downloadable PDF of each member's biography;
- A page with an organized view of some of their concert and CD reviews.

In addition, they wanted an elegant and clean look that nonetheless had visual interest by virtue of a few tasteful animations. And finally, I wanted a way to empower them to update the components of the site themselves without having to touch the raw Flash files (which have the extension FLA.) or email me too often. Let's look at how we accomplished these goals.

Putting together a blue print

The trio wanted a design that matches the design of their latest CD of music by Ravel and Shostakovich. After

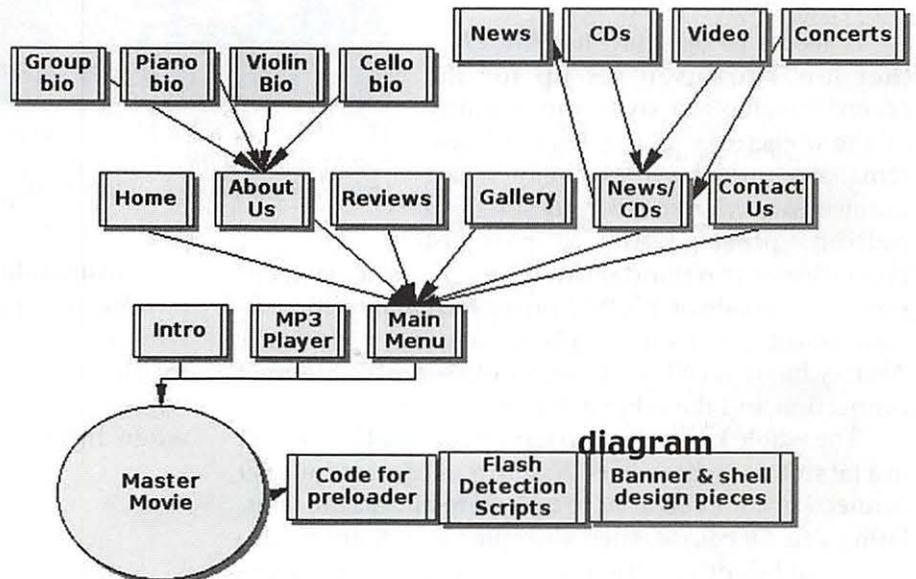


Figure 1: Diagram of the Gemini Piano Trio Flash site.

planning the banner, color scheme, content, and layout, it was time to create the shell into which all pieces of the site load. The best approach for designing a Flash site is to keep it modular. It is not one Flash movie; it is many pieces (separate Flash movies) that load into or replace each other and form structural hierarchies.

Take a look at the diagram of the various levels to the Gemini Trio site. As you can see, the master shell movie, at level 0, loads first. It then triggers the loading of its dependent movies, the main navigation bar for the site, the MP3 player, and the design elements (such as the banner) that are common to all pages. These are the components that will remain on the screen at all times. The last piece that downloads on the first screen is the (uh oh) introductory animation. By loading it into the main master movie, the visitor can immediately click a desired link without having to first click out of the intro. No "Skip Intro" button is needed here! (See Figure 1.)

By creating multiple separate movies, the visitor has to sit through a download *only* for desired links.

Flash Detection Scenarios

Let's take a moment to look at what happens when we type in the address for the Gemini Piano Trio Web site (<<http://www.geminipianotrio.com/flash/>>. The first document that loads is a standard HTML index page. (Note: one of the benefits of loading Flash movies into standard HTML pages is that metatags can be added to

HTML version of the Gemini Piano Trio Web site in case the visitor prefers it. The index page also includes "no script" tags with similar explanatory content that loads if the visitor has JavaScript disabled. (See Figure 2.)

Preloading Feedback

After performing detection and determining that Flash Player 7 is installed, Master Movie begins directing a complex series of events. Before any visible content loads, Master Movie directs the loading of a hidden movie with a shared library that contains, among other common items, the outlines for embedded fonts that will be used throughout the site. After these common elements are in place, Master Movie directs the intro animation movie, the navigation buttons, and the MP3 player movie to load into its shell. These components are three separate movies that need to download before they can play. To give the visitor visual feedback that something is happening during the wait, a faded violin becomes progressively more saturated. The percentage and the number of kilobytes downloaded also appear on the screen in dynamic text boxes that get their information as a script from Master Movie runs. (See Figure 3.)

Modular (not modal) Music

Once the components for the opening page of the site have downloaded, a hierarchy must be established in order to keep the important elements on the screen at all times. For instance, no matter what page of the site the visitor chooses, the MP3 player and main menu need to remain visible and functioning. The way this occurs is through a stacking order, or levels. Master Movie is level zero, and therefore is always on the bottom.

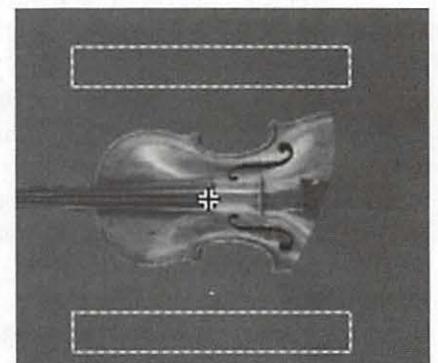


Figure 2: Alternative content for visitors without Flash and with JavaScript turned off.

aid in search engine optimization.) This index page has a Flash detection script that checks for the latest version of Flash Player, which is version 7. If the visitor has Flash Player 7, the master movie dynamically loads into the index page.

If the visitor doesn't have Flash, or has an old version of Flash, some alternative explanatory text, as well as the GPT banner, loads into the page. There is a link to the download page for the Flash Player, and a link to the

Figure 3 : Violin animation with empty dynamic text boxes that fill as a script calculates the percentage and kilobytes loaded



The various pages of the site (such as the biography pages, the reviews, and the gallery) load into level 5. The number of the level is not as important as the order: higher numbers rise to the top of the stack. Keep in mind, too, that movies that share a level get swapped in and out on the stage. If intro and gallery are both in level five, and intro is currently playing on the stage, once the visitor clicks the button for gallery, intro is unceremoniously escorted off the stage to make way for gallery. The hook lives...

You can see, then, that by simply loading the MP3 player piece into something like level 21, it will always be visible and on top on the stage. The other thing to keep in mind is that movies are transparent except for the areas where there are actual objects such as an MP3 player. This allows the designer to layer components in Master Movie. If the pages for gallery, reviews, and videos keep their objects in the middle of the screen, even though their level may be higher, the banner at the top of Master Movie will still show through. (See Figure 4.)

Planning for Change

The violinist of the Gemini Piano Trio is very Web savvy, and, in fact, he created the standard HTML version of the group's Web site. It became clear to me that he could easily handle updating the various components of the site himself if I gave him a little training. I typed out some basic directions, and spent a Sunday afternoon showing him the underpinnings of his Flash site. The important key I needed to convey to him was that he never has to touch an FLA file (these are the raw Flash files) in order to make his updates. The content, in the form of JPGs, MP3s, and TXT documents, is external to the Flash files, and loads at runtime.

This Flash site makes extensive use of dynamic text boxes. What that means is that the written content is not actually embedded in the Flash movies themselves. Rather, the content is "called" at runtime. I used ActionScript, which is the programming language of Flash, to code this ability into the "swf" (the extension used in Flash movies) files.

First I created the plain text documents from the client's content. Each document starts with a variable and then sets the content as the value. For example, here is the text in a plain text document for the description of one of the images in the photo gallery:

```
info=<p>Sheng-Tsung Wang, violinist</p>
```

The variable is "info" and the value is "Sheng-Tsung Wang, violinist" encased in HTML paragraph tags. Flash MX 2004 has some limited support for CSS, and an external style sheet sets the formatting for the paragraph tag.

I created all of the documents in this way, and put them in appropriate folders. The folders contain the documents for the different pages:

- News contains text documents for CDs, videos, news, and concerts;
- Reviews contains a separate text document for each review;
- Vars (short for variables) contains the group and individual biographies, as well as two documents that set the number for the photo gallery and MP3 player (more about this later.)

You can see that all the violinist has to do is modify the information in the plain text document. He was trained not to touch the variable or HTML code.

Updating the Photo Gallery

Of course there are always new publicity shots as the group records new CDs or performs in concert. For

that reason, I made the slide show dynamic as well. Again, the images are external JPG files that are "called" through the use of ActionScript code in the gallery movie. My violinist has to do three things in order to update the slide show:

- Open a text document called "slide_info.txt" that contains the following variable/value pair: totalFrames=8. At present, there are eight images in the slide show. If the group wanted to add two more, it would change the value to ten.
- Size the new images to the specification of 320 by



Figure 4: The MP3 player movie only fills the bottom of the screen

Note: Flash is also great at handling XML, databases, and scripting languages such as PHP.

There are three areas in which I planned for client updating of the site: the MP3 files, the JPGs for the photo gallery, and the text for the various areas such as reviews, news, biographies, and concert schedule. By the time you read this article, the video pages should be complete, and I plan to make those easily updateable as well. Let's take a look at the text updates first.

Updating Text

200 pixels, place them in the folder called "frames," and name them according to our numerical conventions. Starting with image 0 (initialization commonly starts with zero), the images are named like this: frames0.jpg, frames1.jpg, etc. until we get to frames7.jpg for a total of 8 images.

- Create a description for the new image in a plain text file that has the same name as the image file except for the .txt extension. For example, frames7.jpg has a companion frames7.txt document that contains the following variable/value pair: info=<p>The Trio in action, Smith Theater 2003</p>

The numerical names serve an important purpose in that they provide the basis for a loop that cycles through the gallery.

Updating the MP3 Player

One of the most important marketing tools of the site is the MP3 player with samples from the group's CDs. There are plans for recording a new CD this year, and, just like every other part of the site, the violinist will be able to update the MP3 player himself. The steps are similar to those for the gallery, but with a twist made possible by a new feature that was included in Flash MX. Let's review the steps:

- If necessary, we alter the number of sound clips in a text document called "track_info.txt." The current value is set to "8" because that is how many sound samples there are in the MP3 player;
- Create a new MP3 file of a sound clip. Name it with our numerical convention. For instance, the first MP3 file is named "mp3-0.mp3," and the last one is named "mp3-7.mp3.;"
- Put the sound clip in the "mp3s" folder on the server;
- Here is where the process shifts a bit from the companion descriptive text document the gallery employs. Starting with Flash MX, some new functions were added to ActionScript. These functions allow for the manipulation of ID3 tags. ID3 tags add metadata to the MP3 file to give information such as title, artist, and composer. Now when the MP3 player loops through the sound samples, the title and composer are pulled from the MP3 file itself! This information is called into a dynamic text box on the MP3 player. The violinist (a PC user, ah well) can edit this ID3 information right

in Windows Media Player. Let's look at a picture of the MP3 player again, but this time with ID3 information displaying along its length. (See Figure 5.)

Note: Other "toys" in the MP3 player include a preloader that shows how much of the sound has downloaded. Because the sound is set to stream, the file begins playing before it finishes downloading. A related feature is the little ball that gives feedback for how much of the sound has played, and how much is still left. Finally, there is a volume control that allows the visitor to adjust the level by percentage. There is an alpha setting added to the ActionScript so that as the slider goes higher, the text

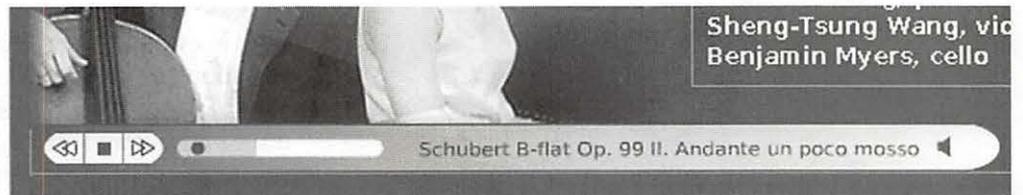


Figure 5: Embedded ID3 tags allow Flash to identify and caption the music as it plays.

becomes darker and more visible. As the slider goes closer to 0%, the text begins to fade.

Remaining Reservations

I hope that this article has convinced you that there is some virtue in using Flash for specially targeted Web sites. Each new version of Flash gets better on accessibility issues, so this last great area of resistance should fall away in time as well. For instance, you can use an XML file to stream captioned text as videos play in your Flash file. If you would like to learn more about accessibility and Flash, go to the "Flash Developer's Center" at:

<http://www.macromedia.com/macromedia/accessibility/features/flash/hints.html>

Another area of resistance, search engine optimization, still poses its problems, but there is good advice here:

<http://searchenginewatch.com/searchday/article.php/2200921>

If you're interested in learning Flash yourself, I recommend the following books, in this order:

- *Flash MX 2004 Hands On Training* by Rosanna Yeung—this book includes a CD with exercise files. I think it is the best book for beginners. The writer is an experienced educator, and goes through each step in great detail.

"Is there ever a good reason to use Flash? Can it overcome the problems of accessibility, search engine optimization, easy updating, and interminable download times? I hope to make a good case for the (occasional) good decision to use Flash, while revealing how I constructed just such a site with maximum efficiency and user-friendliness as my goals."

- *Flash MX 2004 Beyond the Basics Hands on Training* by Shane Rebenschied—this book also includes a CD with exercise files. This book is where I learned to program my MP3 player and create dynamic content that can be easily updated.
- *Macromedia Flash MX 2004 Training from the Source* by Jen deHaan. This book helps you explore features such as working with XML and using the new version of ActionScript. I used lessons in this book to create the reviews movie of the site.
- *ActionScript Cookbook* by Joey Lott. As you get more proficient in Flash, you'll find yourself using ActionScript rather than timelines to create most of the functionality in your FLA files. Joey Lott is updating his book now, and the *ActionScript2 Cookbook* should be released soon.
- *The Flash MX 2004 ActionScript Bible* by Joey Lott and Robert Reinhardt. While you're waiting for the cookbook with its recipes, you can delve into the intricacies of ActionScript 2, the latest version of the Flash programming language. This book has comprehensive information about all aspects,

and it explains when it is best to use each function.

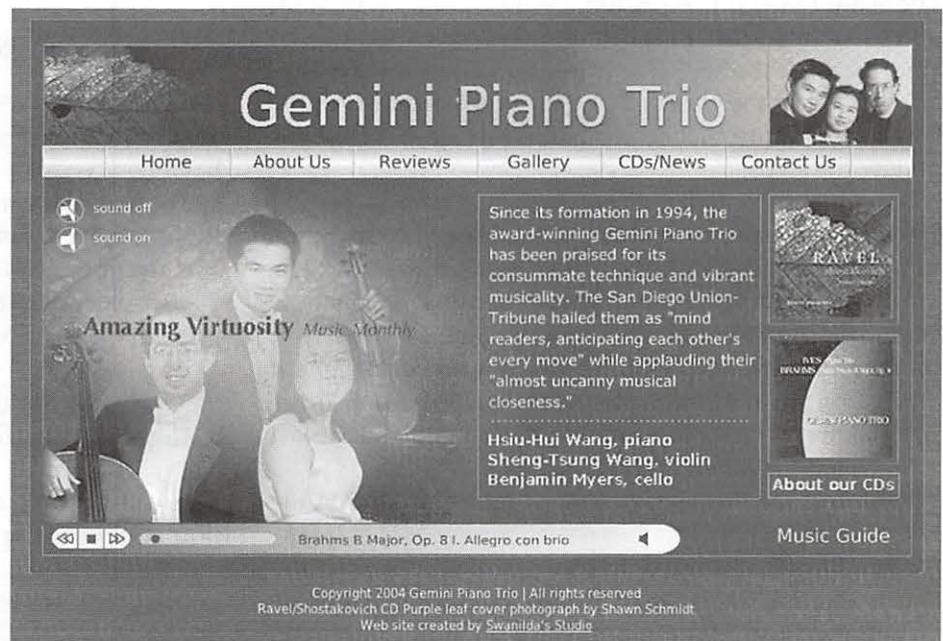
Additionally, Joey Lott is a partner at Community MX:

<http://www.communitymx.com/>

where, once you become a member, you can get personalized help with your Flash projects from The Man himself. Joey helped me solve an ActionScript problem I was having with the sound in the intro animation.

Community MX publishes two new articles, tutorials, or extensions each business day of the year. There are hundreds of Flash titles in the database, many of which provide unique content that can be found nowhere else.

I hope you've enjoyed this intimate look into the construction of a Flash site, and have become convinced that there are times when Flash is the best choice. Now go visit the Gemini Piano Trio Web site. As you read all the latest news on upcoming concerts and CDs, you can smile smugly to yourself because you know exactly how that information got there. ■



Broadband at Sea

John Barnes©2004

HAVING USED Wi-Fi “hotspots” and Internet cafes in various places during the past two years or so, it was with some anticipation that I signed up for wireless broadband on a recent vacation cruise in the Caribbean. Although one can argue that doing this violates the very idea of a vacation, one person’s recreation may be another person’s office drudgery when it comes to the Internet. My 12" iBook goes with me on all such jaunts because it is a civilized way to look at the photos that I download from my digital camera.

I was disappointed to learn that this particular installation, on the MS *Rotterdam* of the Holland-America Line, had a WAN Bandwidth of 128 kbps (128,000 bits per second). This does not qualify as “high speed” in my book. Of course about the only way for a ship in the middle of the ocean to send Internet and other traffic is via satellite. The *Rotterdam*’s provider was Maritime Telecommunications Network (<http://www.mtnsat.com/>). Figure 1 shows the antenna dome for the satellite transceiver.

There were several pricing plans available ranging from 75 cents per minute to 40 cents per minute, depending on how big a block of time one purchased. The user had a choice of either wired or wireless, no mixing of the two. The Wi-Fi hotspot was in a part of the ship that was some distance away from the wired Internet cafe. This was a problem, as it meant that the support person had to be lured away from the Internet Cafe room when problems arose.

There was one printer, which seemed to be available only to people on the wired LAN. The option of plugging a laptop into the wired LAN with an Ethernet cable was not available. The installation was quite new and the support person was not yet well trained, although she was very oblig-

ing and willing to help users with their problems.

Getting launched was problematic, as the Java applet authentication scheme was poorly supported on the several Mac browsers that I was using. The usage clock ran in a popup window that was quite unreliable. The user was obliged to leave popups enabled. The authentication scheme called for the user to attempt to open a connection to the Internet via one’s browser, at which point a sign-on dialog would appear from the ISP. This is a common enough scheme for hot spots, but this one was the least robust of the several that I have used.

In my first couple of sessions the connection would drop unexpectedly. On two occasions I was told that “solar flares” were interfering with satellite communication. I gave up trying to access the Pi’s TCS because the combination of latency at the Pi end and the slowness at the ship end made that too expensive.

It took quite a bit of patience to work out a protocol for signing on and maintaining a connection. I made liberal use of the freeware *WhatRoute* program to make sure that the pipe was open and flowing smoothly. When it got stopped up I just logged off and came back later. I probably could have avoided some problems if I had synchronized the IMAP mail accounts on my laptop with those on my desktop before I boarded the ship. It took quite a while to get caught up with a couple of week’s worth of e-mail.

A number of people wanted to send pictures to friends and relatives. I didn’t try this myself, but I bet there were frustrated folks when they found out that



Figure 1—The dome on the left is the satellite antenna for the MTNSAT hookup. This is the top deck of the MS *Rotterdam* looking aft. (Photo by John Barnes, taken with an Olympus C5050Z digital camera.)

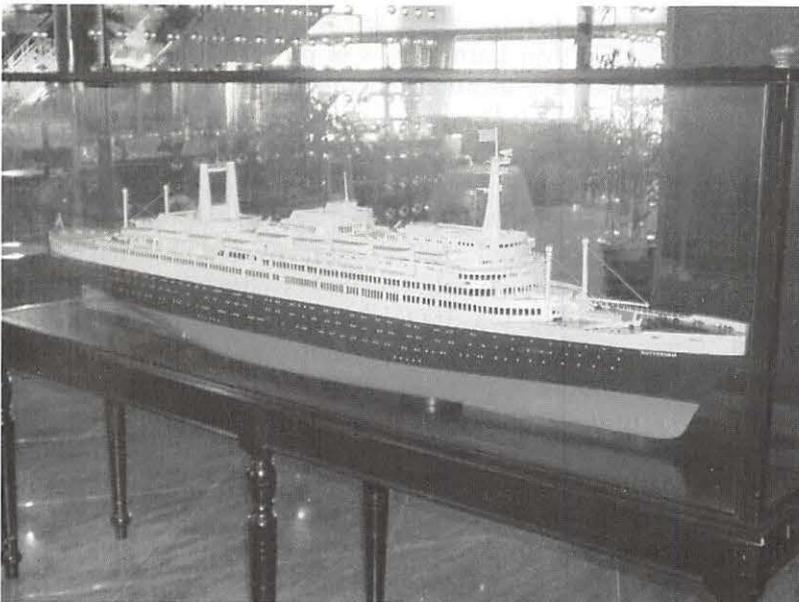


Figure 2—Model of the Rotterdam V launched in 1959 with a gross tonnage of around 32,000. (Photo by John Barnes, taken with an Olympus C5050Z digital camera.)



Figure 3—Rotterdam VI - Gross tonnage 61,000, at the dock in Puerto Limon, Costa Rica. (Photo by John Barnes, taken with an Olympus C5050Z digital camera.)

this could easily cost them \$5 or \$10 per session.

I encountered several other Macintosh users, all of whom were using Mac OS X, but with varying degrees of sophistication.

In the end my limited Internet usage worked out to about \$10 per day, which was comparable to what one pays for a DSL link in one's room in some hotels.

Other users on the *Rotterdam* gave me anecdotal evidence that the broadband is much better implemented on other cruise ships. What I experienced was a big improvement over versions that I have experienced on other ships, but it is nowhere near as comfortable as

the combination of T-Mobile and Starbucks or the \$10 per day variety in moderate priced hotels and Internet cafes.

The above observations were originally posted on the TCS message boards. Other Pi members chimed in with some relevant observations.

Paul Schlosser pointed out how his ability to correspond with his children every other day while on a cruise contributed to his and his wife's peace of mind. By limiting usage they were able to keep their tab to \$20 for the whole trip.

Charles Ostrofsky pointed out that Royal Caribbean and Celebrity offer a stateroom Internet hookup using a dataport on a dialup telephone on some of their ships. It is not broadband. The speed is about 38,000 bps with a lot of lost connections. Very slow. They only "officially" support Windows but since all they do is dialup using your laptop's modem it is actually easier to connect with a Mac. The charge is \$100 for a 7-day cruise.

Lawrence Charters is a real pioneer in this area, having maintained a LAN-based Web site over a 9600-baud radiotelephone modem on an Alaska scientific expedition aboard a leased cruise ship a few years back. The story is detailed at:

<http://www.wap.org/journal/remoteweb/>.

I might not have signed on this time around if I had not had my trusty Airport-equipped iBook along and if the ship had not offered Wi-Fi. I brought the iBook mainly for viewing pictures, watching DVDs, and listening to audio books. It turned out that I was able to help a couple of clients, to keep up with some Pi activities, and to touch base with family on days when the ship was at sea for the whole day. I was also able to confirm that the dining room staff had murdered the recipe for Bananas Foster. I was not able to print out my boarding passes for the flight home at the end of the cruise.

I returned from a European sojourn on the maiden voyage of the *Rotterdam V* in 1959. That ship was 39,000 tons or so. (Figure 2) The *Rotterdam VI* (Figure 3) is nearly twice as big and it showed in the smoothness of the ride.

If you look at the "beam" specification for cruise ships it is striking how many of them come out at 105.6 feet. I think this is controlled by the 110-foot width of the locks in the Panama Canal. I am also amazed by the fact that these eight- and nine-deck monster ships only draw 26 feet. Their stabilizer systems must be real marvels to keep them from heeling over in the slightest breeze. ■

Back Again By Popular Demand The Garage Sale!

Computer Show and Sale December 4, 2004 9:00 am - 2:00 pm

Northern Virginia Community College (NoVA)
8333 Little River Turnpike (VA route 236), Annandale, Virginia

Only once this year will Washington Apple Pi hold its Computer Show & Sale (known as a Garage Sale in honor of the origins of the Apple computer). This is the place to buy, sell and bargain hardware and software used with Apple and Macintosh computers. If you bring in your Mac system, you can have one of our skilled volunteers give it a checkup for a donation to Washington Apple Pi.

Coupon: for \$1.00 off admission, wap.org/events/gsale.html

Directions:

Northern Virginia Community College is 1 mile west of Beltway (I-495), exit 52, on Virginia Rte. 236. Coming from the Beltway on 236, turn left at the 2nd light into the campus. Follow the road to the left and around behind the buildings to the Ernst Community Cultural Center. Sale will be held in the Community Cultural Gymnasium, through the same entrance as the auditorium where the General Meetings are held; turn left instead of right after entering the cultural Center. Free Parking (if you park in the right lot): Use the parking area that says Cultural Center Parking. It's across the road from the Community Cultural Center (but not in a straight line across). On Saturdays, the lot has its entrance traffic arms in the up position. Use it.

Warning:

Parking in the wrong place subject to fine. Anyone parking in other than the Cultural Center parking lot may be ticketed by NCVA. The Cultural Center will not be responsible for parking tickets received as a result of parking in an area other than the Cultural Center parking lot.

If you get a ticket, it is between you and NVCC

Admission: Members \$6.00; Non-Members \$7.00

Table Rentals: Table without electricity - \$20.00

Table with electricity - \$30.00 (limited availability; get there early); Vendors must bring their own

cords and power strips.

For more information, including how to arrange to sell items at the Sale, send e-mail to: garagesale@wap.org

If you can help out, contact the Pi Office or email: vpvolunteers@wap.org



Recent Apple Security Enhancement

edited by Richard "Dick" Rucker

The following is a message thread that appeared in this location:

Menu >> Computing >> Mac OS System Software
>>Apple's bold security enhancement

Apple's bold security enhancement #2844
FROM: Jon Thomason
TO: All 07:16 PM Monday, Jun 07, 2004

Apple released a security update today. Unlike the vast majority of these patches, which simply resolve a bug and prevent software from misbehaving, this one actually introduces new system behavior to help users assess risk.

<http://docs.info.apple.com/article.html?artnum=25785>

I spoke of an approach like this back in April, in the context of dealing with newly-downloaded Trojan horse applications which a user thinks are documents.

<http://tcs.wap.org/topic?b=union&top=1070#1096>
<http://tcs.wap.org/topic?b=union&top=1070#1097>

Today's security update doesn't solve that – but it solves a related problem in a surprisingly similar way. Specifically, it solves the problem which Unsanity described in a whitepaper promoting their Paranoid Android software.

<http://www.unsanity.com/haxies/pa/whitepaper>

http://daringfireball.net/2004/05/help_viewer_security_update

My remarks back in April were essentially blue-sky what-if brainstorming. I never imagined that anything like this would be introduced into Panther as-is, let alone Jaguar. Or that it might be introduced in a point update, let alone a security update. At my wildest moments, I figured it could be a behavioral change they introduced with 10.4 Tiger and a much-enhanced Finder application.

Anyway – my thought was that if the user can't immediately tell that a file is actually an application, possibly even a Trojan horse application, then the system could maybe keep track of applications which the user has seen before. And upon launching one that he hasn't, the system presents a warning message.

Today's update does exactly that – but not for applications double-clicked directly. (That would be annoying, and new, and while it might be useful to add a low-level administrator's option for something like that, it's really not something they can just slip into a sudden security update for everybody.)

Instead, they only do it for applications launched indirectly – as described in the Unsanity whitepaper. Those launched to handle a particular document, or a particular URI request. If the application has already been launched directly by double-clicking on it, at any point, then there's no change.

I think this is quite clever. And VERY bold, to have been conceived, written, tested, and distributed in about three weeks in response to a vulnerability.

They can take it several steps further in major system updates, but I'm duly impressed by how they handled the immediate theoretical issue at hand.

Apple's bold security enhancement #2848
FROM: Richard Rucker
TO: Jon Thomason/all 05:25 PM Tuesday,
Jun 08, 2004

A Unix/Windows guru friend of mine pointed me to this article:

<http://www.infoworld.com/article/04/05/17/HNmacoshole_1.html>

The title of that May 17 article is:

"Mac OS X hit with another serious security issue 'Highly critical hole' allows remote system access" By: Kieren McCarthy, Techworld.com

The article concluded with this paragraph:

"While constant problems with Microsoft's software – in particular Windows – continue to have a far greater impact than holes in Macs, Microsoft's more open approach to security holes was only learnt through a misguided effort in the past to keep security issues quiet, a lesson that Apple could well heed."

Below is my reply sent earlier today, thanks in part to Jon's message #2844 and TidBITS#732/07-Jun-04.

Just thought you might like to know that Apple's security update 2004-06-07 became available for user download yesterday.

I just finished making the update on my machine, which took less than 5 minutes from clicking on Software Update to completion of Restart at the end of its installation.

The changes made by this update are:

(1) Launch Services now alerts a user if an application that wants to launch has never been launched directly by this user before; i.e., if the user has never double-clicked on the application's icon or name before.

If he has, even if this is the first time, the application is launched without an alert. The thought apparently is: User be aware, but we're not going to protect you if you intentionally do dumb things.

I'm guessing here, but something is now tracking the usage of all applications installed on the machine by each user's account. It will generate an alert if a particular user has never double-clicked on this application before. That is, if the launch sequence was requested by some document or URL, and not the user himself.

I've not seen the alert, but I'll bet it says something more helpful than, but along the lines of: "launch this application at your peril."

By implication: Apple seems to have concluded that Trojan Horses and the like, which are designed to trick the gullible into double-clicking them, are not Apple's problem.

(2)Registration of "disk URLs" has been removed so that disk images accessed by that scheme will no longer mount automatically. That is, if you have made contact with a URL that, in turn, downloaded a disk image to your hard drive, then you will have to mount that disk image yourself to make use of it, and you do that at your own risk.

Seems reasonable to me.

(3)In Apple's browser, Safari, it has been possible for certain downloaded files to be opened when the "Show in Finder" button is clicked. That feature has been eliminated, presumably to avoid opening and launching a downloaded application inadvertently.

May 17 to June 7, that's 21 days or 3 weeks from alarm bells to solution. How's that for responsiveness on Apple's part?

Apple's bold security enhancement #2849
FROM: Lawrence Charters
TO: Richard Rucker/all 06:38 PM Tuesday,
Jun 08, 2004

> By implication: Apple seems to have concluded that Trojan
> Horses and the like, which are designed to trick the
> gullible into double-clicking them, are not Apple's problem.

I don't know that I'd phrase it quite that way, but yes, that is the general idea. A Trojan horse is, by definition, a case of false advertising: it looks like a Greek offering, but is actually full of sweaty soldiers.

A Trojan horse program is, indeed, a valid program. It just doesn't do what it says or implies or looks like it might, should, ought to. Apple would be hard pressed to write a set of rules that can prevent the user from being duped. If it could - Microsoft would go bankrupt.

Apple's bold security enhancement #2850
FROM: Jon Thomason
TO: Richard Rucker/all 08:46 PM Tuesday,
Jun 08, 2004

>May 17 to June 7, that's 21 days or 3 weeks from alarm bells
>to solution. How's that for responsiveness on Apple's part?

To date they've been keeping technical information separately available from the piece that every grandma needs to know. A lot of people trying to peer in cold from the Windows world to draw direct comparisons aren't aware of that, but Mac-savvy network administrators always have been.

<<http://www.apple.com/security/>>
<<http://www.apple.com/support/security/>>
http://www.info.apple.com/us/en/security/security_updates.html

Still, Apple has been listening to the

twists and turns taking place outside while addressing this, and they're willing to make corresponding adjustments.

<http://maccentral.macworld.com/news/2004/06/07/appleupdate/>

It seems to me the InfoWorld article, while not wrong, draws its conclusions from the continuing clash of cultures and expectations between those worlds. Not so much from objective security concerns, but from a shortcut of thinking that prematurely places Apple under the terms of Microsoft's house arrest.

Apple's the new guy, as far as InfoWorld is concerned. And as much as one may be impatient for the new guy to adjust to each detail of our preexisting expectations, it's a two-way street. The new guy's big challenge is to bring forward a non-tech-savvy majority of its users into the cutthroat wired world.

The rest of us may need to accommodate the fact that they boil down the story to those users for approachability. Technical details are readily available to the others who need it - Apple merely deals with the two groups separately, as appropriate to the needs and expectations of each group. That's uncommon, but reasonable. Either we can afford them that change or they'll need to start scaring their novice users and numbing them to danger, just like everyone else.

As Apple grows to become more familiar with outside customs -and- others grow to become more familiar with what they're trying to do, we'll meet halfway. Personally, I hope this is possible to achieve with more perspective than has been attainable in the Windows world for so many years running. We'll see. ■

**OUTSTANDING
DISCUSSION**
<http://tcs.wap.org>



Report on Another Hard Disk Repair Utility

edited by Richard "Dick" Rucker

The following is a follow-up posting that appeared in this location on the Pi's forums, <http://tcs.wap.org/>:

Menu >> Computing >> Repair & Maintenance >> HD Repair Advice - Part 2

HD Repair Advice - Part 2 #1075
FROM: Richard Rucker
TO: All Tuesday, Jun 08, 2004

Last November, message #505 that started a thread entitled "HD repair advice," began this way:

TidBITS#707 dated 24-Nov-03 has an informative review of the latest versions of five hard disk repair utilities for Mac OS X. The author is David Shayer who "was a senior engineer on Norton Utilities for Macintosh 3.0, 4.0, and 5.0. Before that he worked on Public Utilities, a disk repair program that won the MacUser Magazine Editor's Choice Award, and on Sedit, a low-level disk editor." I quote all that because the guy writes like he knows from experience.

In the article, he compared the capabilities of various disk repair programs to repair vari-

ous hard disk problems that he managed, with the use of special tools, to inflict upon a real hard disk. Those programs were:

Norton Utilities 8.0
DiskWarrior 3.0
Drive 10 v1.1.4 from Micromat
Disk Guardian 2.2
Apple's Disk Utility

In yesterday's TidBITS#732 dated 07-Jun-04, David Shayer follows up with a review of *TechTool 4* from Micromat and ranks it in with all the rest. It can be found here.

<http://www.tidbits.com/tb-issues/TidBITS-732.html>

A brief synopsis follows: The things he tested each candidate for were its ability to detect and correct:

- Bad Sectors; i.e., sectors with scrambled or unreadable data due to head crashes.
- Damage to the Allocation File which "tracks which blocks on the disk contain files, and which are empty."
- Damage to the Volume Header which holds data used to find "the allocation file, the catalog file, or any of your files."

Apple Product from LATE Models To Recently Discontinued; We have 'em All!

All-in-One PowerMac 5260 \$499, iMAC's from \$149 iBook from \$499
B&W G3 Towers From \$249, Graphite G4 \$549 & QS \$699 More..



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21061
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- Damage to the Catalog File which "tracks all your files and folders."

- Damage to the Extents File which is used to supplement the catalog file when one of your files is so badly fragmented that the catalog file itself cannot keep track of all the fragments.

- Damage to Treads which are "used to look up folders and resolve aliases quickly."

- Overlapping Extents which occur "when the file system thinks two files occupy the same space on the disk."

- A Disk with a Slew of Problems: "I created a disk image... [where I] messed with the headers in some nodes, the records in various nodes, and the maps in some nodes."

In the TidBITS article, David explains how each of these utilities did in each test. But the bottom line per David is:

"I stick with my earlier recommendation for dealing with damaged disks. Try Apple's Disk Utility first - since it is free and isn't likely to create any additional problems - and if Disk Utility fails, hand the damage over to Disk Warrior, which has the best chance of fixing what-ever ails your hard disk. And please, keep good backups!" ■

Index to Advertisers

Absolute Mac	1
Bethesda Computer	C4
Heller Information Services	C3
MacUpgrades	C2
Plugged in Pi	74
PC Retro	59
WAP Garage Sale	55
WAP Hotline	67
WAP meeting announcement	14
WAP Rings around	45
WAP TCS	5
WAP TCS 56 K	24

Using the Calculator in Mac OS X and How to Add its Hidden Powers

© 2004 Pat Fauquet

FOR AS LONG as there has been a Macintosh operating system, a calculator application has been included. It was a very simple program in earlier versions of the Mac OS, but it gained new graphing functions in Mac OS 8 and above.

In early operating systems the calculator was found under the Apple menu. With the release of Mac OS X, the Calculator found its way to the Applications Folder. Many users have overlooked this powerful application that has lots of new features and functions.

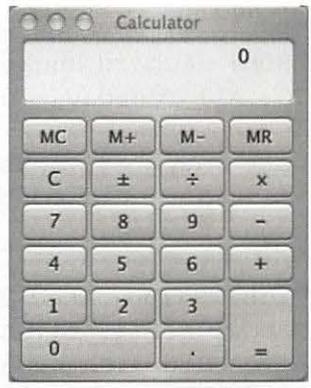


Figure 1.

Launch Calculator and you see a simple device without any visible means of doing much beyond basic functions. (Figure 1) By using the View Menu (Figure 2) and choosing "Advanced," the calculator becomes much more powerful. (Figure 3)

Another feature that is not readily apparent is the Paper Tape (Figure 4). This feature is handy for checking the numbers you have entered for typographical errors. Also helpful are the speech capabilities that can be accessed in the Speech Menu. Choosing "Speak Button Pressed" gives you audio confirmation that you have pressed the correct button. "Speak Total" allow you to hear the total of your numbers.

The Convert menu (Figure 5) allows you to convert calculations between various units of measure. It also contains a currency conversion feature that uses the lat-

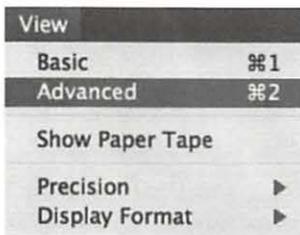


Figure 2.

est official exchange rates from the Internet in the calculations.

What is missing from the Mac OS X calculator are the graphing functions available in the Mac OS 8

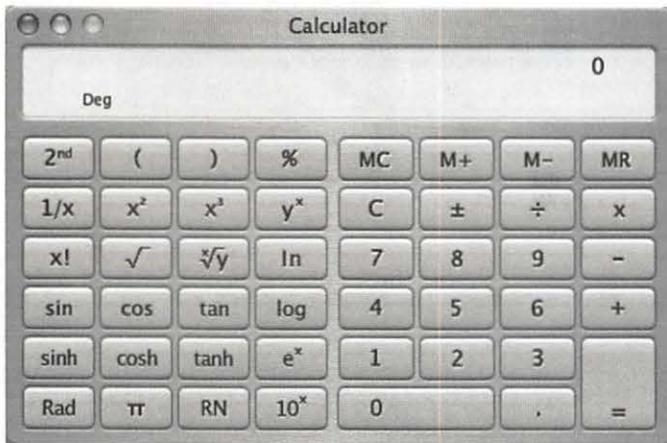


Figure 3.

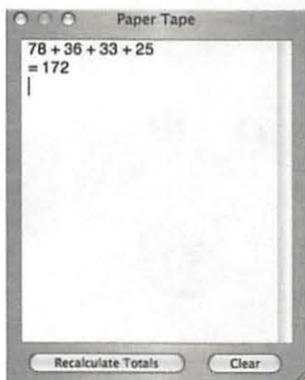


Figure 4.

and 9 calculators. While surfing on the web, I found references to hidden powers for the Calculator application. I found the specific information at:

< <http://www.macintouch.com/panreader20.html> >



Figure 5.

and I found a thread on the Mac OS X Discussion listserv <osxlist.com> that dealt with this topic. Since the instructions include several actions that many Mac OS X users have never done, a complete, illustrated set of instructions seems appropriate. The "hidden powers" add three new items to the View menu of the Calculator

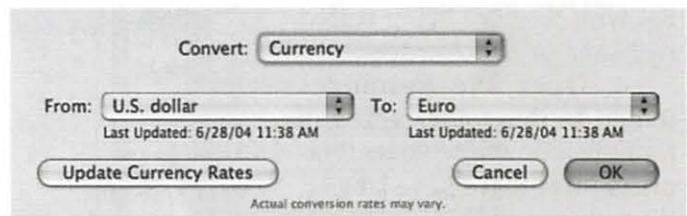


Figure 6.

1. Quit the Calculator if it is running.
2. Navigate to where the Calculator is installed. (It should be in the Applications folder.)
3. Hold down the Control key while clicking on the Calculator icon. Pull down to select "Show Package Contents." (Figure 7)

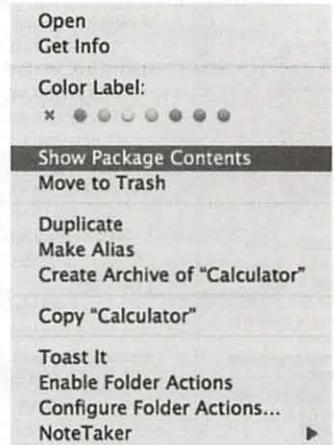


Figure 7.

5. Inside the Contents folder you will see several files. (Figure 8) It is helpful to view this folder as a

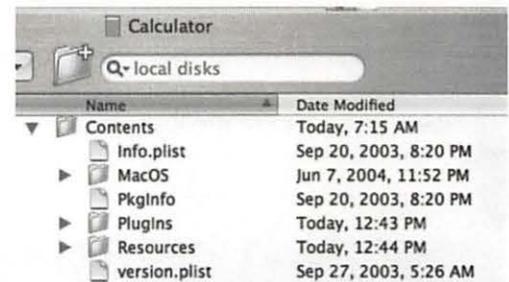


Figure 8.



Figure 9.

list with the files being sorted by Name in A to Z order.

4. Open the Resources folder. In this folder you will find the following folders (Figure 9) Note that I have labeled these files in red.:

ExpressionSheet.calcview
 Graphing-2D.calcview
 Hexadecimal.calcview

5. Move these folders to the Plugins folder.

6. Start the calculator and check the View menu.

(Figure 10) You will find new options called:

Expression Sheet (Figure 11)
 Graphing (Figure 12)
 Hexadecimal (Figure 13)

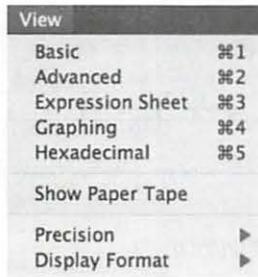


Figure 10.

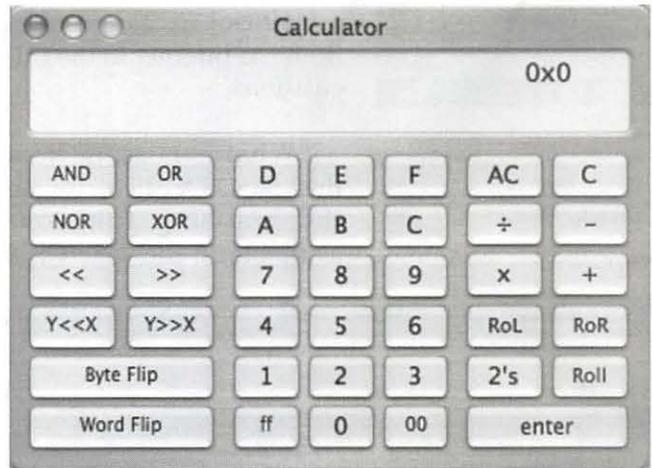


Figure 13

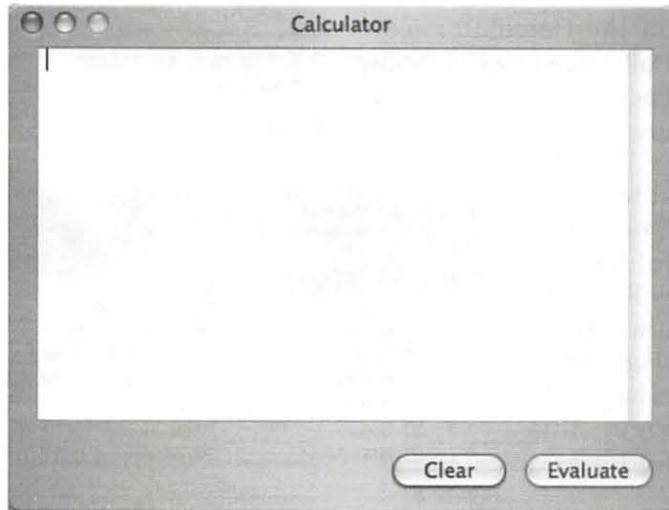


Figure 11.

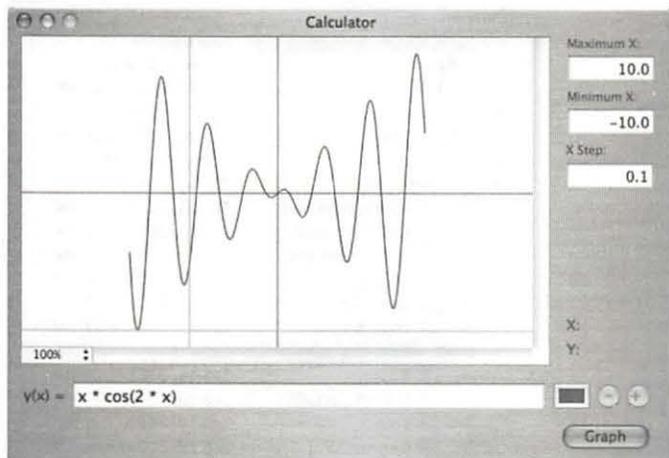
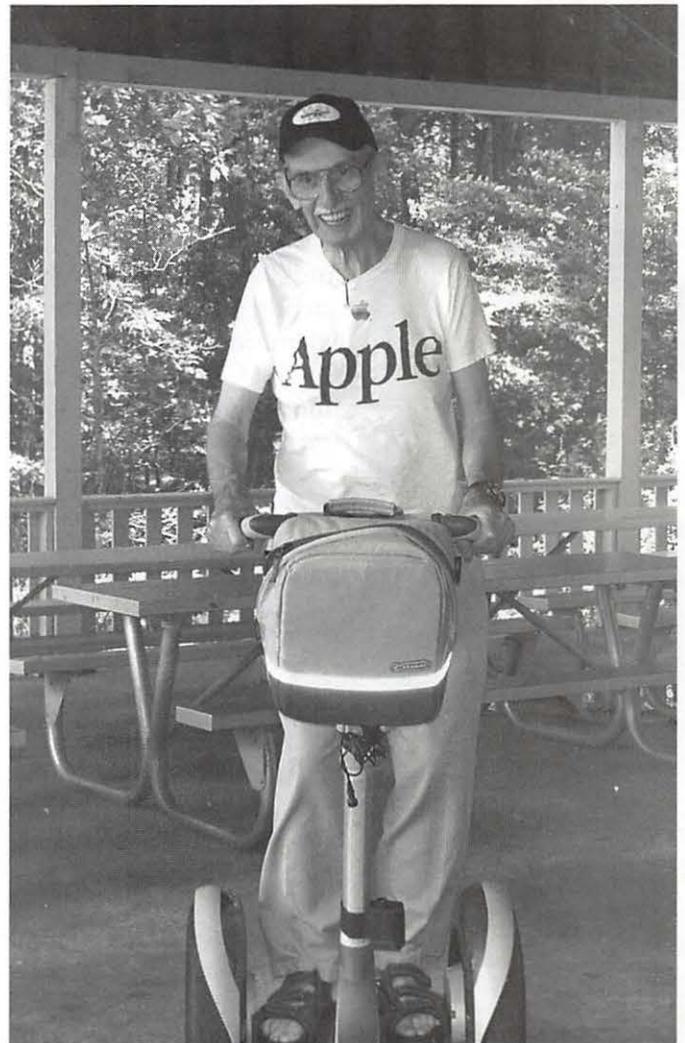


Figure 12.



Meeting Notices

DataBases (Mac) SIG

Volunteers needed to restart this SIG

Genealogy SIG

Volunteer needed to restart SIG.

Graphic Arts SIG

2nd Saturday of the month, 10AM-12 noon, at Mac Business Solutions, 9057 Gaither Road, Gaithersburg
www.wap.org/gasig/default.html

iMovie SIG

2nd Thursday of the month, 7:00 PM, WAP office.
Contact: Hal Cauthen at ChgrHorse@aol.com

Power User SIG

1st Monday of the month, 7:30 PM, WAP Office
Contact: John Barnes at jdbsci@speakeasy.org
www.wap.org/power/default.html

Retired SIG

3rd Friday of each month; 9:30 AM till 12 noon normally at the WAP office. Each meeting will have a topic, but be run informally.
www.wap.org/retired

Teen SIG

1st and 3rd Thursdays of the month, 6:30 PM to 8:30 PM, WAP Office. Contact: Will Byrd at emacs_groks@yahoo.com

Virtual SIGs:

Apple II Information:

www.wap.org/aple2/forever.html

Apple III Information:

www.wap.org/aple3/default.html

iMac Information:

www.wap.org/events/imacinfo.html

WAP Garage Sale— June and December

WAP General Meeting

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

Inactive SIGS

If you are interested in restarting any of these SIGs contact the office.

AOL SIG

Apple III SIG

Excel SIG

FileMaker Pro SIG

Game SIG

Mac Programmers' SIG

Newton Developers' SIG

NoVa Education (Ed) SIG

QuickTime SIG

Stock SIG

Telecomm SIG

Women's SIG

Notice: Plans change! Anyone with calendar information please call the Calendar Editor, WE NEED A VOLUNTEER, or the WAP Office (301) 984-0300.

The Apple II and /// CFFA Project:

Now you can use CF cards and IDE drives on your Apple II family computer using one card!

by Richard Dreher
R&D Automation
(with some editing by Dave Ottalini)

THIS ARTICLE describes a project to create a CompactFlash / IDE Interface card for Apple II computers (//e enhanced or later). The card is ProDOS 8, GS/OS and Apple /// (SOS) compatible. With an additional driver, GS/OS users get additional partitions and speed. I did the original wire-wrap prototype over the span of several months. This project is very much a case of old technology (the Apple II computer) meets new (CompactFlash cards and Altera CPLDs). My reasoning for this project was simple: I wanted to be able to pull out my old Apple II and use it from time to time to reminisce about the early days of personal computers. I also wanted a reliable way to store my Apple II programs and data files for many years to come.

Due to the long-term reliability prospects of floppy drives, and my general laziness, I decided a mass storage device is what I needed. The Apple II was an excellent example of an open system, with unheard-of-today documentation like system schematics, firmware listings, and peripheral design tips. In the spirit of the

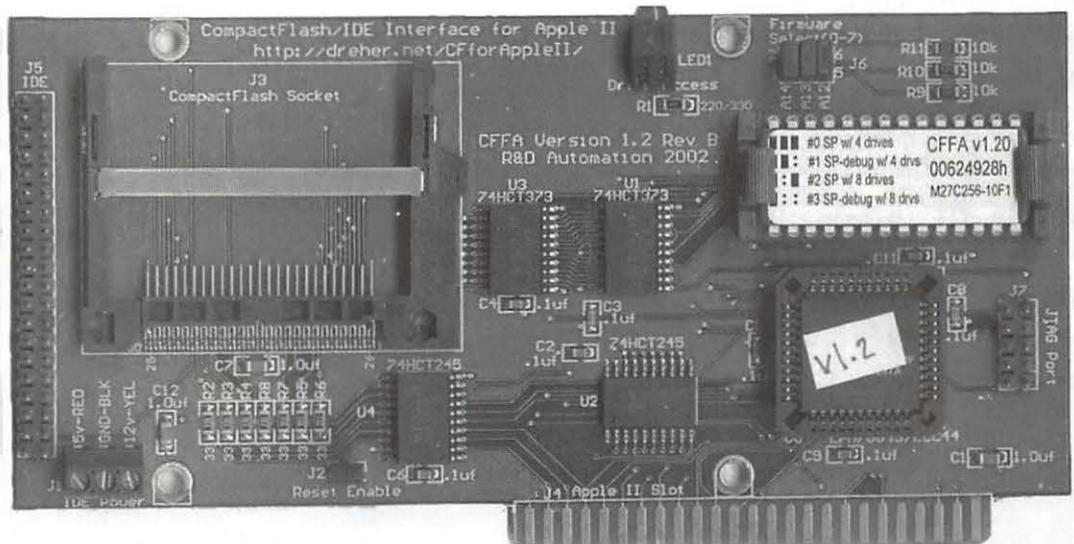
Apple II this project is also an open project. You can download all of the software and hardware schematics for the project in the downloads section. Also the manual, in PDF format, is available.

CFFA Project Background

Every once in a while, I find myself reminiscing about the good old days of personal computing. The good old days for me were high school, circa 1981, when the Apple II+ was the computer to have and the computer I wanted. Unashamedly I begged my mother until she got one for me. It was not until years later that I found out she had taken a loan to do so. Bless her heart! It was a good investment, if I do say so myself.

Sometime in October 2001 I found myself in one of those moods and pulled out my Apple II+ to play with. It had been many years since I used it last. I found a note taped to the computer that stated it didn't work and that I believed there was a problem with the language card. The computer would boot, most of the time, but would crash, breaking into monitor at seemingly random locations. Sometimes it would just hang. This was disheartening, and I decided that I was going to fix it no matter what. Even if it meant buying another one, which wouldn't be much of a fix.

I located an Apple II diagnostic disk that was used by Apple service centers and it immediately found the root of the problem. I had a bad D8 ROM chip. I was able to replace this chip with a standard 2716 EPROM and a simple converter socket. To save money, I am sure, Apple used 9316B ROM chips instead of the industry standard pinout chips. This means that you cannot just plug a 2716 EPROM into an Apple ROM socket, but



Top View of the CFFA Apple II card. The IDE and CF connectors are at the left.

must fashion a converter socket first. See the section called "ROM MEMORY" in the Apple II Reference Manual, pg. 94 for 9316B pinouts.

After borrowing someone else's Apple II+ I was able to copy his D8 ROM and copy its data into a 2716. I put the EPROM into my Apple II+ and presto, it was again working fine! As it turned out the language card was never the source of the problem, it worked fine.

Great, I had my Apple working again, so it was time to reminisce about the good old days. I wanted to show my wife Sherry some of the programs my friends and I had written so many years ago. She had saved one of her Apple diskettes from her high schools days as an Apple II hacker. Things were going along great when one of the programs I had written tried to write a file to the diskette, and *trashed* it. Ouch!

Because of an unfortunate mix up years earlier, I had thrown away most of my Apple II diskettes by accident. It was not until recently that I had found a friend who had copied about ten of them to use with an Apple II+ he had found in the garbage. Thanks Mike!

So it was one of these very precious diskettes that Mike had saved for me, that I had just scrambled while trying to check out one of my old programs. I soon realized that my floppy drive, made by RANA, was scrambling data on the diskettes every time it wrote to them. I don't know what is wrong with it yet, so I switched to another set of drives from the same Apple II+ I had copied the D8 ROM from.

I spent the next three days trying to recover that scrambled diskette. After downloading several Apple II emulators and disk transfer utilities, I was able to make a disk with the "Bag of Tricks" utilities by Quality Software. These are the utilities that were described in the *Book Beneath Apple DOS* by Don Worth and Pieter Lechner. Since the damage to the diskette's data was limited to the catalog track: \$11, I was able to recover the disk. The reason it took so long was mainly due to the time spent finding all of the necessary tools to get software downloads off the Internet onto my PC and then onto an Apple II diskette.

It was after this episode that I realized that the reliability of diskettes might become a serious impediment to future reminiscing sessions years down the road. The first thing I did was create image files for every diskette that I could and store them on my PC. I made copies of the disks that could not be read by the ADT transfer software. These were mainly games. I realized that I could simply use an Apple emulator for my retreats into computer history, but I feel it is just not the same, and if I ever have children, I would want them to see and touch one of the very first "real" personal computers, not some simulation of an Apple in a window on a Pentium VIII

running Windows 2012. It would be meaningless. So I decided I wanted a hard drive for my Apple, and started looking for one of the old SCSI solutions for the Apple II. They did exist, but were pretty rare, and even if I could find one I figured it would also be unreliable.

In my search I stumbled on several web pages where someone had interfaced an IDE hard drive with an Apple II and other old 8 bit machines. Struck by the relative simplicity of the project I figured it would take two weekends to build one. The project I used as a model most closely was Stéphane Guillard - Apple II IDE/ATA interface project. His project was unique in that he wrote code for the Apple II that understands the FAT16 format, or at least is headed in that direction.

The problems started very soon. I was not using the LSI chips that Stéphane had used, but instead an Altera EPM7064S series CPLD. I discovered several things about these chips that proved to be a problem. Mainly the problem was my lack of experience with this CPLD. Between hardware and software, my two weekends had turned into two months. During that time though, several good changes to the project's design resulted. The main change was the decision to use CompactFlash cards instead from IDE hard drives.

Realizing that it may be some time before Stéphane was able to integrate his OSS code into either ProDOS or DOS 3.3, I decided to abandon building a duplicate of his project and set off in another direction. I wanted only ProDOS support. ProDOS is the DOS that Apple released around the time of the introduction of the Apple IIe (and is based on the Apple ///'s SOS operating system). Then after the release of the 16 bit Apple IIGs, they renamed the 8-bit version of ProDOS to ProDOS 8 to differentiate it from the new 16-bit version. Because ProDOS 8 only supports two 32 Mbytes drives per device, I decided that an IDE hard drive would be a waste, in many ways. Instead I changed the project to support CompactFlash cards in "true IDE" mode. Although an IDE hard drive would still work.

I ask a friend and ProDOS hacker from way back, Chris Schumann, to help me develop a ProDOS 8 driver that would work with ATA devices, specifically the SanDisk 64 Meg CompactFlash Memory Card. We spent several days coding with marginally working hardware and roughed out the ProDOS driver, complete with debug code that would output via an Apple Super Serial card back to my PC. He had written ProDOS drivers in the past that allowed a file on a PC to appear as a hard drive on the Apple linked via a RS232 serial connection.

After much struggling with a glitch in my Apple II+ that made my hardware work unreliably, and nearly giving up, I tried the card in the Apple IIe platinum I purchased via Ebay, and it worked great. Special Thanks

to Jeff Pagel for his help and the loan of test equipment. "...it's probably a timing issue..."

All Your CFFA Card Questions Answered

To better answer any of your questions, I've put together a FAQ file that should explain the card and what it can do:

Q: Why?

A: Why Not? OK, a better answer: To learn how to interface IDE-ATA devices to 8 bit micros. The 6502 may be long gone, but 8 and 16 bit microcontrollers, by Microchip, Motorola, and others are still excellent platforms for embedded products.

Q: How much does the current card cost?

A: Assembled and tested with a User's manual: US\$105 + Shipping Charges for second run boards. This board includes the EPROM Ejector socket. Which was \$110 + ship during the board first run. (Does not include a CompactFlash card.)

Shipping to any location in the lower 48 states is a flat US\$5. If you live overseas, please contact me or fill out the order form, and I will contact you with the shipping charges to your location. If you agree with the extra shipping charges, you can then send your payment.

Q: Are you taking orders yet?

A: Yes!

Q: What payments methods will you accept?

A: I will accept:

■ PayPal: My PayPal ID is: rich@dreher.net. Fastest way to get order processed

■ Money order: Typically faster than a personal check.

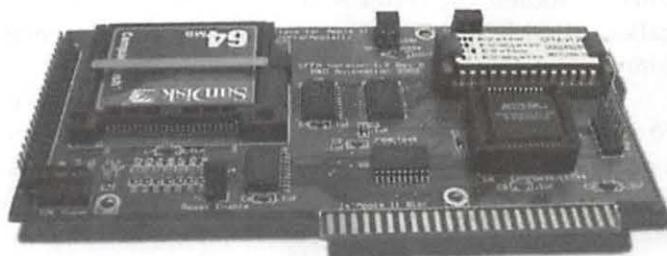
■ Personal Check: Once your check clears the bank, I will process your order.

Payments can be sent to me at the following address:

R&D Automation
5102 Blazing Star St.
Wausau, WI 54401
USA

All payments must be in US funds.

Q: What kind of return policy and guarantee will you offer?



Side View of the CFFA Apple II card. Note the 64 mb CF card at the left.

A: You may return the product undamaged for any reason within 90 days of receiving it. I warranty the product to be free from defects for 1 year. Warranty returns will be repaired, replaced, or refunded based on my discretion. If you want to return something, please contact me via Email: rich@dreher.net

Q: Can I use a IBM microdrive in place of a CompactFlash memory card with your board?

A: Yes! They have worked fine for me.

Q: How fast is the board. Will it support DMA and Interrupts?

A: Here are the results of a simple test written in BASIC. This test was run on my Apple IIe Platinum @ 1Mhz:

Write 32k bytes ten times to a file: 28 seconds or 11.4 kBytes/sec

Read 32k ten times from a file: 9 seconds or 35.5 kBytes/sec

No, this project does not use DMA or Interrupts. If you need those features you will have to look elsewhere.

Q: What support does your hardware have for hard drives?

A: The CFFA board has support for IDE hard drives that support ATA mode 1 and LBA.(Logical Block Addressing). That means that many of the early small IDE drives that only supported CHS (Cylinder/Head/Sector) addressing will not be supported. Typically drives that are larger than 528 MB will support LBA. Also, the board will have mounting holes for standard 2.5" hard drives to be mounted right to the board (using stand-offs). There is also a power connector to supply +5v, +12v, and GND for the IDE drive. It will be up to the user to determine whether or not the drive they want to use will exceed the Apple power supply ratings. Use caution!

(continued see page 68)

Where the heck is the Pi

HOTLINE

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.

Because other high-speed IDE interface cards exist for the Apple II, I am expecting most people will be using the CompactFlash memory cards with my board. To my knowledge, everyone who has tried using a hard drive has been successful. I have been using my hardware with an IBM 1.6 GB 2.5" hard drive model, DDLA-21620, and it has been working fine.

Q: So, what size devices can I use?

A: Depends: The default firmware selected on the card supports four 32MB drives, for a 128MB total. A second user selectable version of the firmware will support eight 32MB drives for a total of 256MB. The reason for not going with the 8 drive version is that ProDOS 8 only supports 13 total volumes, including the floppies, etc. So if I take up 8 drives, I may cut off access to some other hardware you already have, like a SCSI drive. That is why I will have two versions of firmware that are user selectable. This is all documented in the CFFA user's manual.

Note: If you are going to use Dave Lyons' GS/OS driver you should configure the CFFA to its default firmware that supports 4 drives. When the GS/OS driver loads, if it sees you have jumper-selected the 8 drive version of firmware, Dave driver will not load. In that case you will see all eight partitions via the GS/OS's "generated" drivers.

So, using Dave's GS/OS driver with the 4 drive firmware selected, you will have access to the same 4 drives listed above, *plus* two additional drives that are up to 1 GB each. This will only be possible with Dave Lyons' GS/OS driver, which you can download from this site or from Dave's site.

Q: If I use a flash memory, won't it wear out after a certain number of write cycles?

A: Flash based memory does have a finite number of write cycles. So yes, it is possible that after heavy usage, a flash card could become un-writable. I believe most users will never run into this situation unless they are running software that is writing data with a very high frequency. The SanDisk brand flash card has a sector write endurance equal or greater than 300,000 writes. It also features error detection and correction that automatically implements advanced wear leveling. Drivers/firmware no longer have to worry about doing manual wear leveling any more, at least with SanDisk CF products. Sectors that wear out are automatically detected and removed and replaced from the pool of reserve sectors.

Q: Which model Apple II does this project currently work in?

A: Using Version 1.3 of my firmware...

Model Type — Compatibility Comment

Apple Iigs ROM3 — Working. No problems with on-board firmware or Dave Lyons' GS/OS driver

Apple Iigs ROM1 — Working. No problems with on-board firmware or Dave Lyons' GS/OS driver

Apple IIe Platinum w/ 8Mhz ZipChip — Working. No problems

Apple IIe Platinum — Working. No problems

Apple IIe Enhanced — Working. No problems

Apple IIe — Working. Requires V1.3 EPROM and v1.3 CPLD. Works with regular 6502. Use ProDOS v1.9 or earlier

Apple II+ — Working. Requires V1.3 EPROM and v1.3 CPLD. Works with regular 6502 or later

Apple II — Vince Briel reports: Does *not* work. Not sure why. I don't have an Apple II to test with.

Apple /// — You'll need the free CF/IDE driver available from the file downloads area of the R&D Automation web site.

Features:

- Native Apple /// SOS driver written in 6502 code.

- Up to 8 user definable partitions - up to 32mb each.

- Can manage up to 2 devices - master & slave.

- Master (device 0) can be either CompactFlash memory installed in the built-in socket on the interface card or an IDE hard drive attached to the 40pin IDE connector and configured as master.

- Slave (device 1) can be either CompactFlash (you will need an adapter that can be connected to a 40pin IDE connector and slave configurable) or an IDE hard drive configured as slave.

- Although any size of device can be attached and successfully used, the maximum usable capacity is limited to 16,711,680 blocks.

Q: Will it work with ProDOS 8?

A: Yes. I have used it extensively with ProDOS version 2.0.3, without a single problem

Q: Will it work with Apple DOS 3.3?

A: No. This is ProDOS only. But that doesn't mean it could not be made to work by some crafty hacker... but it would be a serious hack.

NOTE: I have been using the late Glen Bredon's DOS.MASTER software and have been able to copy a version of RobotWar on to a DOS 3.3 partition on a ProDOS disk. Check out DOS.MASTER if you want to have DOS 3.3 volumes on ProDOS formatted disks. Very cool.

Q: Can I load up the CompactFlash / hard drive with all of my old Games and run them from there?

A: Probably not. Most of the old cool games were DOS 3.3 based and had some form of copy protection. So unless it is a ProDOS compatible game, you can probably forget it. But also see "Will it work with Apple DOS 3.3?" above.

Q: Will it work with GS/OS?

A: Yes. It has been tested on both a ROM1 IIgs and a ROM3 IIgs. It has been tested with both ProDOS 8 2.x.x and GS/OS. If you use ProDOS 8 you will get four 32MB drives. If you use it with the GS/OS driver, you will get four 32MB drives plus, up to two 1 GB drives. These last two drives have been limited to 1 GB each due to limitations in the HFS file systems' cluster size. At 1 GB, the cluster size is 16384 bytes, therefore a 1 byte file would consume 16384 bytes of disk space.

Q: Will it work in a //c?

A: No. There are no expansion slots in an Apple //c to place my hardware in. It will not work with the SmartPort on the back of the //c. It needs an expansion bus slot, like the Laser 128 had.

Q: Do you need to format the CompactFlash or HardDrive before use?

A: Yes. Once connected to the interface, I have found Apple System Utilities 3.1 or later (I think that was the last

one) to be the best choice for formatting. When formatting the partitions 3 and 4 in certain slots, you may run into a bug that exists in both Apple System Utilities 3.1 and Copy II+ (all versions I believe). See the post in my forum for more details on working around this problem.

Q: Can I take the CompactFlash out of my Apple II and read it with my Mac?

A: Yes! Using a CF card reader you should be able to mount the CF card on your Mac and access your data. But please note that the Mac will probably not see the multiple partitions on your device and may treat it as one large partition. So be careful to only write to the first 32 MB from your Mac, or better yet not at all from the Mac.

Q: Can I take the CompactFlash out of my Apple II and read it with my Windows/DOS based PC?

A: No (or maybe). No you can't just read the files off of the drive, because the format is not a Microsoft FATxx standard. But you can back up the CompactFlash to an image file using programs like Ghost or Drive Image Pro. Note: you will need a way to attach your CompactFlash to your computer; I used a con-



The 2004 Pi Picnic was a time for a group photo, complete with Segway. (Photo taken by Bob Mulligan with an Olympus E-20 digital camera.)

verter board by: Adtron part# SDDA-03, available from EMJ Embedded

Q: What about the Apple II+ and the un-enhanced IIe? Do you have to use 65C02 specific instructions in your firmware?

A: Yes. The current firmware does use 65C02 specific instructions. Some of the C02 instructions make coding much easier. I won't be supporting the 6502. But that doesn't mean you couldn't do it yourself :)

Q: I took the CF card that I was using in my CFFA board and put it back in to my Camera, PDA, Gizmo, etc. and it doesn't work. I can't format it and nothing seems to work with it. Did the CFFA board hurt my CF card?

A: No!!!! The trouble you are having probably is due to the fact the MBR (master boot record) has been overwritten on the CF card. On the very first sector of any hard drive in the PC world resides the MBR. This is where the initial boot code and the main partition table is normally stored. The CFFA card has no use for this information and allows ProDOS or GS/OS to use that space as normal data storage for the file system. When you go back to using your CF card in another device, it may not like the fact that it can't find that MBR

information, and refuse to work with that CF card. So you will have to re-write the MBR back to the CF card and then you will be able to re-format the card using your favorite camera, or whatever device has that capability.

How you go about getting the MBR back onto a flash card can be quite tricky. I may not know the easiest way, but I have done it. I used a CF to IDE convert board and hooked up the CF card to a PC as Master drive 0. I *removed all* other hard drives so that there was *no* chance I would blow away the MBR on another drive. I then into booted into MS-DOS from a DOS floppy and at the A:> prompt I typed:

```
fdisk /mbr
```

This action will cause fdisk to write a new MBR to drive 0 (C:) and quit back to DOS. It will not write the MBR to another drive *no matter what other parameters you specify*. So don't think you can say something like FDISK X: /MBR and it will affect the X: drive. *It will not*. It will rewrite the C: drives MBR, potentially causing massive loss of your data.

How you would do this on a Mac, I have no idea. If someone knows, drop me a note.

Finally

As of May 22, 2004, The CFFA is a universal Apple II card. It should work in II's and II+ machines that only have a 6502 CPU. When new firmware/logic files are ready, you will be able to download them from the R&D Automation site at:

[http://dreher.net/
?s=projects/
CFforAppleII&c=projects/
CFforAppleII/main.php](http://dreher.net/projects/CFforAppleII&c=projects/CFforAppleII/main.php)

Since most people don't have CPLD burners, a new EPROM and CPLD will be offered to existing customers, at my cost+shipping. ■



The 2004 Pi Picnic was a time for venturing out onto Lake Accotink. (Photo taken by Bob Mulligan with an Olympus E-20 digital camera.)

The Apple /// SIG and Washington Apple Pi, July 2004

by David Ottalini
Long-Time Apple /// SIG Co-Chairman

Author's Note: The original version of this article was published in the WAP Journal in late 1988 as part of our 10th year anniversary celebration. We updated a bit for the 25th anniversary but it's time for another report. Enjoy!

Beginnings

Washington Apple Pi was barely a year and a half old when the Apple /// was introduced at the National Computer Conference in Anaheim in May 1980. The /// was the first computer to be designed in-house by Apple Computer. It was supposed to be a replacement for the Apple II, which Apple was afraid would not continue to sell well. The Apple /// was specifically designed as a business machine and Apple sold it in "bundles" with software and hardware.

For Washington Apple Pi, the first mention of the Apple /// occurred in February 1981 when Burton S. Chambers III wrote a *Journal* article entitled "Flavors: Little Tidbits." Orange was the color of his /// comments. He said that he wanted to wait before making a final decision on the machine until there was more software and the bugs were worked out ("I'm sure it will be a useful machine some day"). Apple /// user Mark Cheren wrote the following month ("Here So Slowly Comes The Apple ///") that he had gone through three Apple ///s (due to early production problems) but still felt the machine had excellent potential. He wrote: "So, have I made a mistake? Frankly, I don't know yet."

The first call for a /// SIG within Washington Apple Pi was made by Charles N. Dow, in the April 1981 *Journal* ("The Not-Too-Slow Apple /// Is Great!"). Dow, untainted by the Apple II, was a bit more exuberant over the /// and its possibilities, writing that "the Apple ///, I have confidence, will be a great business asset, developed from the experiences gained from the Apple I, II and all other sources."



The /// SIG is born

It took ten months more, but in February 1982, Dow (the first "Pro Temp Chairman") gave the official announcement that a /// SIG within WAP had been formed ("Update On the 'Big Apple' ///"):

So herewith we unilaterally establish a group and invite all of the members who are interested in learning more about the newest Apple and the smallest Users Group (there are six members that I have been in touch with personally).

The June 1982 Apple /// article by Ronald Askew reported the third meeting of the SIG occurred April 15th at Walter Reed Army Medical Center. He wrote that 11 of the 20 ///ers in WAP had attended. Askew also reported that SIG librarian Michael Konvalinka had "collected virtually every important article, ad and publication referencing the Apple /// and relevant hardware and software."

In March 1983 came the first, and only, complete review of the /// done in the *Pi Journal*. "A Report Card On The Apple ///: Does It Merit A Passing Grade?" was written by William C. Jacobson. The bottom line for him was that the (now) two-year-old Apple /// got a "qualified passing grade." He was particularly upset that the /// had such a poor implementation of CP/M and called for an upgraded emulation disk to handle 64K and upper and lower case.

The SIG Continues To Grow

By May of the following year, Bill Hershey had been elevated to SIG Chairman. He was the first "official" leader of the SIG. In July 1984 Hershey reported that the SIG now had 73 members! He also reported that an Apple Rep assured the members of Apple's "continuing commitment to the ///."

Midway through 1984, the SIG had gained a Co-Chairman in Jerry Chandler. Bill Hershey officially made way for Bill Rosenmund as co-chair in January 1985. Throughout that year, SIG Secretary Charlene Ryan kept the ///'s flame burning in the *Journal*. She reported in January that despite the bad news about the /// being discontinued, the SIG was alive and well and members felt the /// was still a great computer. Over the course of the year, the SIG continued to meet, held a few tutorials and even surveyed members by mail. June 1985 marked the debut of this author in the *Pi Journal*. Over the years, he published many, many articles about the /// - all of which are available on disk in the /// SIG Public Domain Library.

The Late 1980s

By 1986, the author had also taken over for Bill Rosenmund as co-chair and Jerry Chandler moved on. Tom Bartkiewitz ultimately agreed to co-chair. In July 1986 SIG Librarian Al Lambert announced our first four public domain disks. By 1997, there were 250 disks.

Early October 1987 saw a prominent role for the // / SIG at the Phase III Conference and Exhibition in Chicago. Sponsored by The Third Apple Users group (TAU), it was the only Apple /// convention ever held. One of the discussions was about *ThreeWorks* - a series of databases for the /// developed by this author. The primary data base - a bibliography of virtually all known Apple /// articles - is now available as a FileMaker Pro database on the Washington Apple Pi Web site at:

<http://www.wap.org/a3/>

The Development of BOS ///

One of the proudest accomplishments of the /// SIG in the 1990s was serving as a catalyst for development of /// products. BOS /// - the first upgrade to the SOS Operating System in 10 years (written by Bob Consorti of On Three fame) was a wonderful achievement.

It was done with the financial help of Washington Apple Pi and ATUNC, the Apple Three Users of Northern California, along with many individual ///ers. A driver for the 1.4 MB SuperDrive was developed, as was

"For Washington Apple Pi, the first mention of the Apple /// occurred in February 1981 when Burton S. Chambers III wrote a Journal article entitled "Flavors: Little Tidbits." Orange was the color of his /// comments. He said that he wanted to wait before making a final decision on the machine until there was more software..."

a "universal" SCSI driver. In 1997, the SIG successfully worked to develop an updated power supply for the // / with Dr. Stephen Buggy. The Apple II community pointed to those achievements as arguments for continued development of Apple II products.

Since the late 1980's, we've seen a number of good Apple /// friends come and go. Paul Campbell, Seth Mize, Bob Sambolin, Steve Truax, and Dave and Joan Jernigan are among those who were able to keep the // / a part of their computer lives into the late 1990s.

Paul especially deserves credit for his many years of unwavering support for the ///. Living in Detroit, he drove with his growing family twice a year for a number of years to attend the Computer Show and Sale. He served as /// SIG Co-Chair for many years.

The Apple ///: The Machine That Would Not Die

The /// SIG no longer exists as a group. But I continue to answer calls for help even today. The /// has now become something of a collector's item and there is a steady demand for machines - just check EBay. Our public domain library continues to sell disks to folks all over the world. Some have purchased the entire library of 250 disks. I am proud to say the /// PD continues to be the only PD software that sells on a regular basis - thus continue to help the Pi after two decades.

I am also happy to report that we are working to convert the entire PD library to a CD using Bob Consorti's Disk Archive and Retrieval (DAR) program. This CD will include a copy of DAR and will require a Mac with a 3.5" drive and CD. You'll also need an Apple /// with a 3.5" SuperDrive. Stay tuned for more on this.

The SIG has produced a two-set DVD-ROM with the contents of the old "How To Use Your Apple /// In Ten EZ Lessons" and some original content from my collection – mainly some iMovies and a slide show to honor our old friend Bob Consorti and On Three. I am happy to say that there is steady demand for it, and our friend Koji Annoura in Japan is interested in creating a Japanese version of the DVD-ROM.

Work on a /// CD also continues as time permits that will contain a central depository for a vast amount of /// information (including virtually all of this author's articles). The goal is to have it finished by year's end.

Washington Apple Pi is recognized as one of the "last bastions" of support for SARA – especially where PD software is concerned. Do a search on the Web and see how many hits you get – the Apple /// will live a long life on the Internet. In fact, a number of sites have popped up that include not just pictures of the ///, but lots of excellent information. One of my favorites is at <http://www.digibarn.com/>.

One other note for those of you still interested, an Apple /// discussion group continues on the Internet at APPLE3-L@altair.com.

And you might be interested to know that there are still products being developed for the /// even today! Rich Dreher of R&D Automation, LLC. has developed an interface card for the Apple II that includes both a Compact Flash (CF) card and IDE interface. It turns out that ///er Dale Jackson was kind enough to write a driver for the /// as well! WAP is in the process of obtaining one of these cards (which also works with the GS) to give it a try. For more information, point your browser to: <http://dreher.net/CFforAppleII/>.

In Closing

It's hard to believe that the Apple /// has been an orphan machine for more than 20 years now. Still used as an example of bad decision-making by Apple, she deserves better. As a computer, the /// was a groundbreaking machine. Many of Apple's best people worked on its development, many great companies wrote software for it, and many people around the world purchased it.

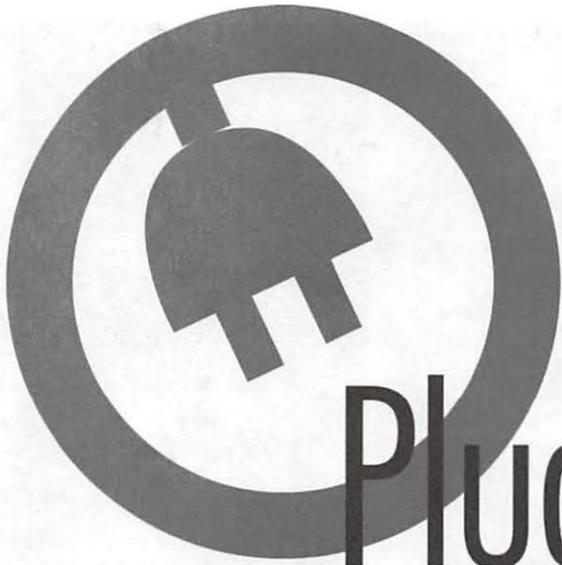
For those of us who did buy and use the /// (and I



Don Mader attended the Pi's 2004 Summer Picnic wearing an amazing purple hat. (Photo by Dick Rucker, taken with a Sony DSC-S70 digital camera.)

still own one!), we remember it as an excellent computer that was ahead of its time.

It is now a part of Apple history. But SARA helped shape the life of many, many people and bridged the Apple II world to the Macintosh in a way few realize or appreciate. ■



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/>

From the June 2004 *Connecticut Macintosh Chronicle*, newsletter of the Connecticut Macintosh Connection user group:

Saving The 'Unsavable'

by Chris Hart, Secretary



HAVE YOU VISITED a web site which contains audio or video clips, and wished you could save them for later listening or viewing? Were you stopped in your tracks by the lack of an option to accomplish this kind of file saving? You're not alone.

Thanks to Corporate America's obsession with copyright protection, much of the audio and video content online cannot be saved to your computer. However, I have a trick to share with you, which may be the solution you've been looking for.

This trick will work for most audio and video files that are being played back by the QuickTime plug-in built into your Macintosh. Of course some multimedia files use other media players to make their way to your screen. So, how can you tell if QuickTime is being used? Well, if the playback control bar that you see is similar to the one below, then you are likely using the QuickTime plug-in, and this trick will work.

[Editor's note: I found that this worked with some files but not others. For instance, it worked with Apple movie trailers <<http://www.apple.com/trailers/>> but not with the QuickTime format Flight Director Updates found on the Jet Propulsion Lab's Web site.]

I must mention that the only types of files that will work with this process are audio and video files which are in QuickTime or MPG/MPEG format. That's because these two types of files are played by the QuickTime software built into your Mac. If, instead, the audio or video content you wish to save is in RealPlayer or Windows Media Player format (meaning it has an extension on the end such as .RM, .RAM, .AVI, .ASF, .WMF), then you'll have to explore other methods of saving it to your Mac. I have provided information, at the end of this article, on tools which will make this possible.

Please remember that it is your responsibility to use the copyrighted material you download with some degree of respect for the originators of that material. If you appreciate their work, you should consider reward-

ing them by purchasing the stuff they produce. With that small lecture out of the way, I now present the trick I've been promising...How to save 'unsavable' QuickTime files in Mac OS X:

Step 1:

Open System Preferences (in the Apple Menu). Click on the QuickTime icon in the System Preferences window. Click on the tab that is labeled "Plug-In." Make sure that there is a checkbox in place for the option "Save movies in disk cache." Quit System Preferences.

Step 2:

Visit the web page, QuickTime player page, or iTunes Music Store page that has the audio/video content you wish to save. You'll notice that as playback of the clip begins to play, the progress bar below it is filled from left to right. This horizontal line begins as all white, and darkens as the file you're hearing/watching is being obtained from the internet. If you like, you may pause the playback and not hamper this process.

Step 3:

You must wait until the progress bar is completely filled from left to right. For example, the progress bar I showed you above indicates that the video clip is only partially loaded. Only once this bar is completely filled can you proceed with the rest of the steps.

Step 4:

Hide the application that is playing the clip. *[Editor's note: do not change the page from which you are playing the clip.]* Switch to the Finder. In the Go menu, select the option "Go to Folder..." A dialog box will now ask you to enter the path to the folder you want. Type in /tmp/501/Temporary Items/ and click on the GO button *[Editor's note: there should be a space between Temporary and Items.]*

Step 5:

You will now have a window on your screen for the

folder "Temporary Items" which contains just that—lots of files that your computer has stored temporarily on your hard drive. I must tell you up front that it is very important that you do not modify any of the files in this folder (such as changing their names or trashing them). Doing so could cause your computer or software to become unstable.

Look through the contents of the "Temporary Items" folder for any files that begin with the name "QTPluginTemp." These files will have random numbers on the end, such as "QTPluginTemp8675309." If there is more than one file of this type, try to determine which is the one you are looking for by comparing the file sizes and modification dates. (Most likely, you are looking for the file with the largest size and/or most recent modification date that is the one you seek.) If you are unsure which file is the right one, you may repeat the steps below for any of the files you suspect are what you're looking for.

Once you have identified the correct "QTPluginTemp" file:

- Hold down the OPTION key on your keyboard.
- Drag that file to your desktop.
- Let go of the OPTION key.

A duplicate has now been created on your desktop. As I mentioned earlier, do not modify the original file. Simply close the folder window named "Temporary Items."

Step 6:

Find the "QTPluginTemp" file on your desktop. Click once on the name, and rename the file to something appropriate, such as "movie trailer." You must follow that name with a file suffix (a.k.a. extension), which tells the computer what kind of file this is. If you're confident that the file is a QuickTime file, then put .MOV on the end (such as "movie trailer.mov"). If you believe the content might be an MPG/MPEG file, then use those letters for the suffix (example "movie trailer.mpg"). An MP3 file should have that same extension (example "song.mp3"). Your Macintosh may ask you if you are sure that you want to change the file name. Reassure it that you do. You will notice that the file's icon immediately changes from one that is generic to one that is colorful. That indicates that the file is now associated with a media player on your computer.

Step 7:

Enjoy the file. You should be able to simply double click on the file and have it start to play back in the appropriate media player (usually QuickTime Player). If that doesn't work, then you'll have to manually launch QuickTime Player and use

the OPEN function in the FILE menu, to navigate your way to the file.

If at first you don't succeed: Below are a variety of software products that allow you to record audio and video on your Mac, in one way or another. You may need to try several, in order to find one that works satisfactorily, or suits your particular needs.

Audion			www.panic.com
Audio Hijack			www.rogueamoeba.com
WireTap			www.ambrosiasw.com
Snapz Pro X			www.ambrosiasw.com
Screen Tool			www.citrussoftware.com
Screen Record	(available at two URLs)		www.macxware.com and www.miennetwork.com
ASF Recorder (for Windows Media Player content)			www.misawa.net/archives/000030.html
Radio Recorder			http://u1.netgate.net/~snowcat/RadioRecorder.html



Outgoing Vice President for Volunteers Steve Roberson at the Pi's 2004 Summer Picnic. (Photo by Dick Rucker, taken with a Sony DSC-S70 digital camera.)

Vendor Offers For MUGs

THESE USER Group discounts are brought to you by the Apple User Group Advisory Board. (Thanks to Lorene Romero and Kevin Anderson for early work this month.)

You must be a current Apple user group member to qualify for these savings. Not a member? Join an Apple user group today to take advantage of these special offers.

CE Software

QuicKeys creates shortcuts that automate repetitive tasks with custom hot keys, toolbars and timers. From typing text, launching programs and remapping keys, to selecting menus, recording and playing back actions, and everything in between, QuicKeys is the premier macro automation tool.

CE Software is offering user group members QuicKeys for only \$59.95 (US) — 40 percent off SRP. They are also offering discounted pricing on Trans Lucy — a new DVD player that lets you watch a movie while you work. Normally priced at \$14.95 (US), Trans Lucy is available for only \$9.95 (US).

Normal Price: Varies UG Price: Varies Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information. Expires: October 31, 2004

Total Training

Have you ever wanted to take an Adobe expert to work or home with you? With Total Training videos, now you can. Plus, as an Apple user group member you can save 25 percent off any Total Training video for Adobe software. This discount is only available on phone orders and cannot be combined with other offers.

Normal Price: Varies UG Price: 25% Discount Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More

Member Specials for further information. Offer Expires: October 31, 2004

BeLight Software Business Card Composer

Since calling cards first appeared in the 1600s in France, one thing has remained the same: you must have business cards to win new business. With Business Card Composer from BeLight Software, you can quickly create and modify professional-looking cards, and easily print them on standard business card stock with office or home printers.

Normal Price: \$39.95 UG Price: \$33.95 Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information. Offer Expires: November 30, 2004

YazSoft

Speed Download 2 is the fastest, most complete download manager for Mac OS X, no matter what browser you use. Optimized for dial-up and broadband connections, Speed Download 2 offers resumable downloading, scheduling, bandwidth throttling and much more. Yaz software offers two licenses for \$30 (US), a savings of 25 percent. Updates are free to all registered SD2 owners.

Normal Price: \$40 UG Price: \$30.00 Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information. Offer Expires: October 31, 2004



David Harris and Nancy Seferian chat during the Pi's 2004 Summer Picnic. (Photo by Dick Rucker, taken with a Sony DSC-S70 digital camera.)

CMS Products

The software component of CMS' award-winning ABSplus complete backup solution is now available as BounceBack Professional, software that can turn any modern FireWire drive into a backup that boots with a single keystroke (a Mac-only feature), or restores an entire system with one click.

Better still, choose from any ABSplus portable or desktop solution and BounceBack Professional to protect your iTunes library investment or irreplaceable photos and movies.

Apple user group members receive 20 percent off any CMS product.

This worldwide offer is valid until December 31, 2004.

Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information.

The MUG Store

The MUG store always has great deals for your members.

Remember the MUG store for the following benefits to all Apple user groups:

- Free freight on all orders
- Knowledgeable consultants available for every customer
- Great deals on new, refurbished and used Macs
- Blowout deals on a large assortment of goodies and accessories
- One percent goes back to your group in merchandise

Normal Price: Varies UG Price: Varies Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials to get the current login and password. Offer Expires: Ongoing

Lapinator

The Lapinator (Insulated Laptop Desk)

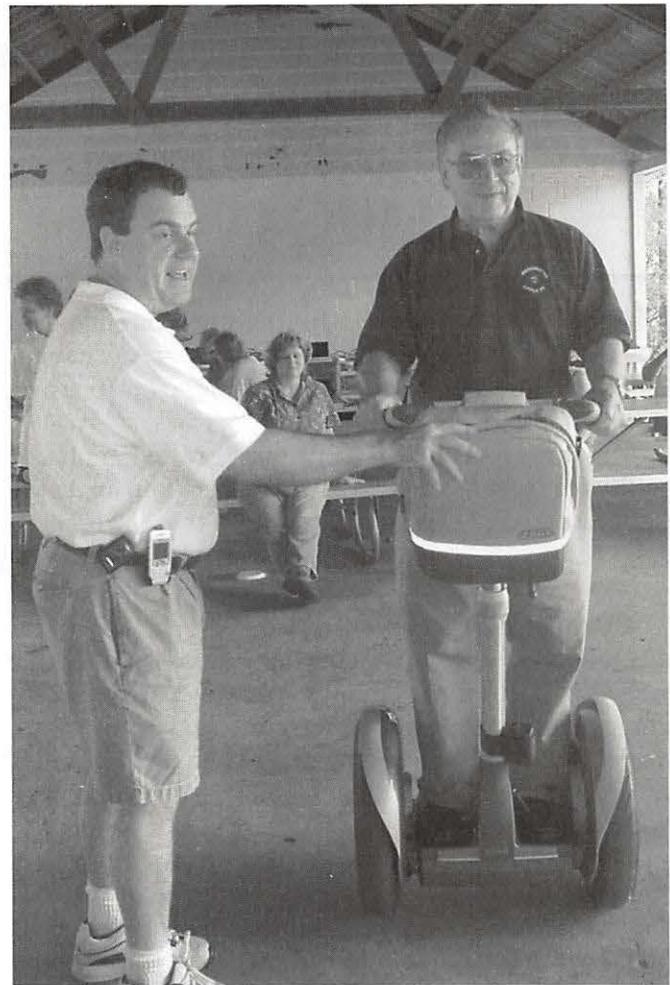
The Lapinator's Thinsulate insulation blocks 95 percent of laptop heat, yet weighs only 11 ounces, keeps your computer cool and provides a stable platform on the road or in your favorite easy chair.

Regularly \$24.95 (US), the Lapinator is available to user group members for \$19.95 (US), with volume discounts available. Shipping is additional and satisfaction is guaranteed.

Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information. Offer Expires: December 31, 2004

Software Kiev Print Shop for Mac OS X and World Book for Jaguar

Create professional-looking CD labels and cases from iTunes playlists. Import photos from iPhoto to cre-



Jeff Lauterette explains how his Segway works to an eager, if someone skeptical, Richard Sanderson. (Photo by Dick Rucker, taken with a Sony DSC-S70 digital camera.)

ate greeting cards. Make a wall-poster-size sports calendar for your favorite team and import all the team's games from iCal with a single click. Print Shop has everything you need to create great-looking projects. Regular price: \$49.95 (US), User Group price: \$39.95 (US).

In addition, MacKiev discounts their World Book Jaguar Edition. User Group price: \$49.95 (US), upgrade price: \$19.95 (US).

This US Only offer is valid until September 30 2004.

Normal Price: Varies UG Price: Varies Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information.

Offer Expires: September 30, 2004

Learn + Design Get quick solutions and outstanding results.

Create layered or photo collages, apply edges to

photos or learn dynamic warping and more. Kits, including Extreme Edges, Euro-Collage Kit, Photo Collage Kit and more, offer a compliment of PDF and Quick Time tutorials and royalty-free images. \$39.95 (US) each or download all for one outstanding price of \$69.95 (US). Domestic and International customers save the shipping and taxes with their MemberZone download subscription. User Group members receive 20 percent off the entire product line.

Normal Price: Varies UG Price: 20% off Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information. Offer Expires: November 30, 2004

Tropical Software

MyControls — Control your system's control panels OS X Style System Preferences For Earlier Systems

Control panel management/launching, "System-Preferences" window and separate toolbars, multiple monitor support for docking any toolbar to any screen edge and contextual menus for toolbar control.

Phonebook — Full-Featured Contact Management OS X Style Address Book For Earlier Systems

Contacts database with address fields, name/company designation, multiple numbers, free form notes, multiple phone books, small footprint, print options, number dialing, optional color-coded categories, custom field support and display options.

Get a 20 percent discount. <http://order.tropic4.com/?ugoffer>

This worldwide offer is valid until September 30, 2004.

Normal Price: \$24.95 UG Price: 20% off Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information. Offer Expires: September 30, 2004

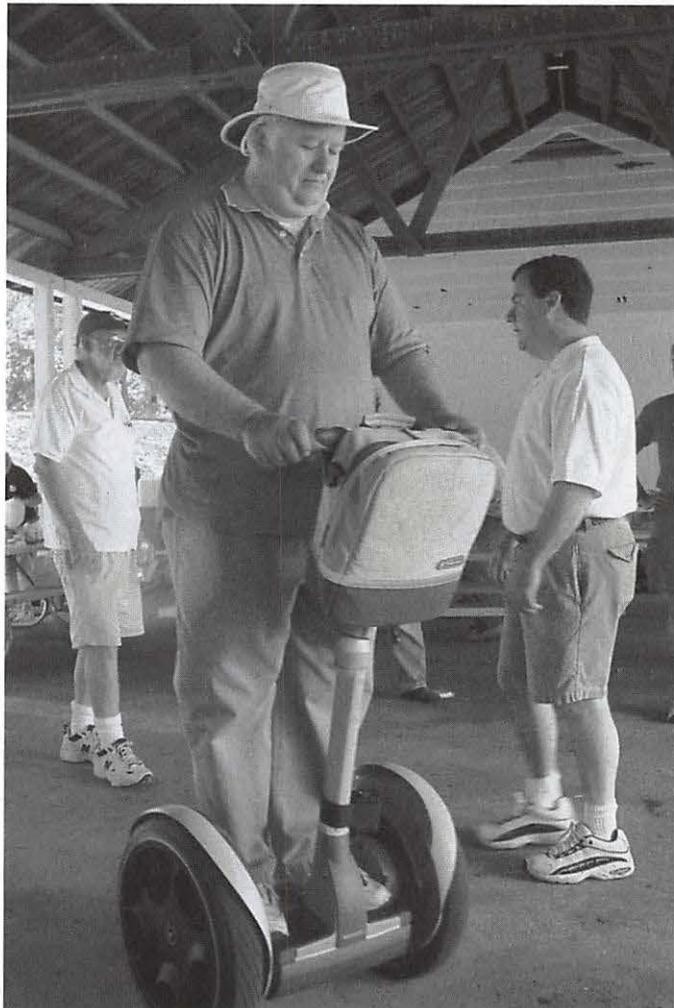
Que Publications

Dreaming of touring the world, seeing your name in lights and partying like a rock star? Who knows? It could happen. Let Que's "MacAddict Guide to Making Music with GarageBand" free your inner rock star and show you how to create, perform and record your own music.

Get 40 percent off the \$24.99 (US) book (free shipping for U.S. customers) using the special user group URL and coupon code.

Normal Price: \$24.99 UG Price: 40% off Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information.

Offer Expires: October 31, 2004



Pi Webmaster Lawrence Charters tries out the Segway Human Transporter at the Pi's 2004 Summer Picnic. Jeff Lauterette (in shorts) eventually made him give it back. (Photo by Dick Rucker, taken with a Sony DSC-S70 digital camera.)

macXware

macXware welcomes apple user groups with a 15 percent discount on any macXware website order using the special MUG CouponCode.

Current Titles

- MacFonts - 1000 TrueType Fonts & FontManager
- MoreMacFonts - 750 New TrueType Fonts & FontManager
- LogoCreator - Create Your Own Identity
- MacBurn - CD & DVD Burning Software
- MediaEdit Pro - Video, Audio & Image Editor
- ScreenRecord - Capture On-Screen Actions
- PhotoEdit - Photo Editor & Paint Tool
- MacPac - Boost Your Mac Power

Normal Price: Varies UG Price: 15% off Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information. Offer Expires: December 31, 2004



Nancy Little tries out Jeff Lauterette's Segway at the Pi's 2004 Summer Picnic. (Photo by Dick Rucker, taken with a Sony DSC-S70 digital camera.)

PodShop

Like peanut butter and jelly, some things just go together.

PodShop has designed the perfect companion for iPod, an acrylic stand/display that complements the look and feel. PodHolder is a beautiful and functional accessory built at the perfect angle, allowing one-thumb access to iPod while preventing scratches.

Regularly \$9.95 (US), PodHolder is available to Apple user group members for \$7.95 (US), a 20 percent discount.

UG Price: \$7.95 Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information.

Offer Expires: December 31, 2004

Macworld Magazine

Macworld offers MUG members a special subscription offer.

Macworld magazine is the ultimate Mac resource!

We pack each issue with industry news, future trends, practical how-tos, in-depth features, tips and tricks, and more &Mac220; we provide the tools Mac professionals and enthusiasts need. Best of all, you can depend on our unbiased, thorough product reviews and buying advice. Stay informed about what's new, exciting, and important. Become a Macworld reader.

Normal Price: \$27.97 UG Price: \$15 for 12 issues (new subscriptions only) Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information. Offer Expires: No Expiration

Phelios

Phelios.com, developers of a wide variety of downloadable games for the whole family, is pleased to offer a 30 percent discount on all Phelios games to members of Mac user groups.

Phelios games offer entertainment for everyone, from kids looking for educational yet fun games to adults craving some brain-teasing puzzle action or arcade-style amusement.

Normal Price: Varies UG Price: 30% Discount Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information. Offer Expires: December 31, 2004

Take Control Electronic Books

Adam and Tonya Engst of TidBITS are continuing their fourteen years of supporting user groups with a special 10 percent discount for all orders in their new Take Control electronic book series. Take Control ebooks provide highly practical, tightly focused, inexpensive help from leading Macintosh authors. Titles are delivered in PDF layout with active links, and are optimized for viewing and printing.

Current titles include:

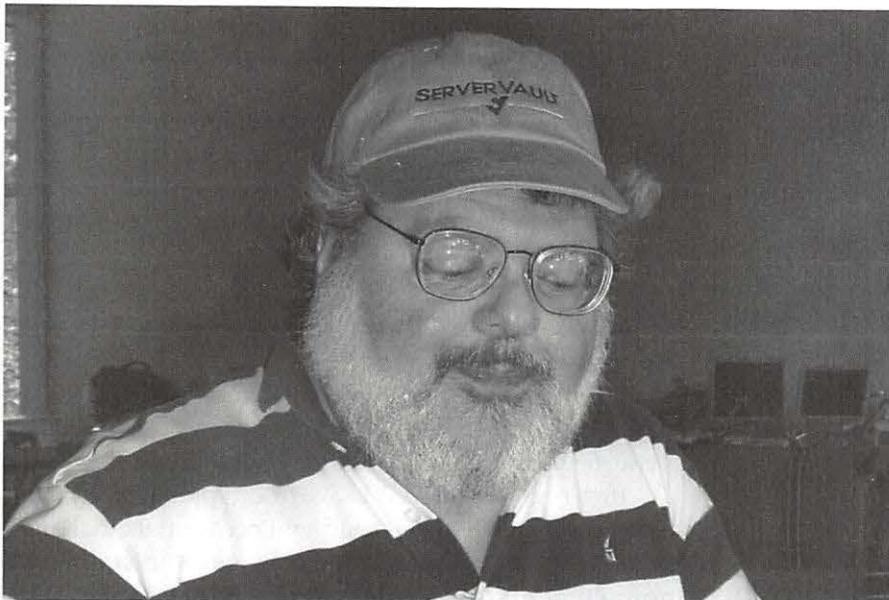
- Take Control of Upgrading to Panther, by Joe Kissell
- Take Control of Customizing Panther, by Matt Neuburg
- Take Control of Users & Accounts in Panther, by Kirk McElhearn
- Take Control of Sharing Files in Panther, by Glenn Fleishman

Normal Price: Varies UG Price: 10% Discount Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information. Offer Expires: Ongoing

MYOB MUG Special

MUG members get the \$25 off the regular price of \$99 on First Edge or \$100 off AccountEdge.

Are you a Mac-based small business that has grown out of your computerized checkbook? Have you grown tired of creating invoices using InDesign or Word? If



Phil Marchetti sports a very safe hat at the Pi's 2004 Summer Picnic. (Photo by Dick Rucker, taken with a Sony DSC-S70 digital camera.)

you think you are ready to move beyond your shoebox, MYOB has the right tool for you at a great MUG discount. MYOB US, Inc., the leader in Mac small business management, has just released MYOB FirstEdge, a new Mac only product that will help you run your business quickly and easily.

Visit our user group web site and download the MUG member order form (PDF format) or email us at usergroups@myob.com and we'll be happy to assist you. -- Todd Salkovitz

MYOB FirstEdge Normal Price: \$99 UG Price: \$74

MYOB AccountEdge 2004 Normal Price: \$299 UG Price: \$199 Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information. Offer Expires: Ongoing

Liquid Library

Complete your design projects quickly and efficiently with this exclusive offer for Mac user groups in the U.S. Get liquidlibrary for ONLY \$79.95 (US) a month (\$125 (US) value).

Get over 150 royalty free photos, illustrations and media elements on a double CD, along with time-saving ideas and inspiration in a 68-page monthly magazine. Plus, you get free online management of all your purchased content and discounted access to over 65,000 images at www.liquidlibrary.com.

To order, go to <http://www.liquidlibrary.com>, call 800-255-8800, or e-mail sales@liquidlibrary.com and use the special MUG VIP Code.

Visit www.liquidlibrary.com/freesample and enter

the special MUG VIP Code to get FREE access to 150 sample images. Take a look and you'll see liquidlibrary has all the tools you need to be the best designer you can be.

Normal Price: \$125 UG Price: 79.95 Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information. Offer Expires: No Expiration

O'Reilly

User group members can receive a 20% discount on any O'Reilly book purchased directly from O'Reilly's website, including upcoming additions to the Missing Manual series. Members are also eligible for a 20 percent discount on all O'Reilly conferences. To receive your discount, use the special MUG Discount Code.

Normal Price: Varies UG Price: 20% off Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information. Offer Expires: No Expiration

Special MacAddict Subscription and Renewal Offer for MUG members

Award-winning MacAddict magazine launched in 1996 as the ultimate hands-on guide to anything and everything Macintosh. Its mission is to provide readers with the most comprehensive range of Mac product and how-to information possible. MacAddict packs each issue with in-depth how-to articles, fact-filled features, expert reviews, and up-to-the-minute news and analysis. MacAddict is justly famous for its eye-catching design and irreverent wit. It is the only magazine for Mac enthusiasts and professionals that offers its readers a compete multimedia experience: a monthly print magazine; a companion CD-ROM packed with software, demos and updates; and the MacAddict.com Web site (www.macaddict.com).

Normal Price: \$29.95 UG Price: \$20.95 Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information. Offer Expires: December 31, 2004

Audible .com Listen To The New York Times Every Morning

Audible, the source for great audio information and entertainment, brings you over 20,000 great audio programs. You simply download them and listen on your computer, MP3 player, Pocket PC, iPod or on CDs you

burn yourself.

Listen to the best audiobooks from top authors like Tom Clancy and Stephen King. Or listen to audio editions of Macworld, The Wall Street Journal or The New York Times.

Join Audible now and you'll get A FREE one-month subscription to the audio version of The New York Times PLUS 3 bonus gifts:

- 10 FREE blank CDs—burn and listen to great Audible programs on any CD player. - A FREE subscription to the audio version of Macworld. - Six FREE issues of Macworld magazine—start or extend your subscription.

You'll always save up to 80% off the retail prices of most audiobooks on CD or cassette.

Normal Price: \$Varies UG Price: \$Varies, plus bundle of additional benefits/services Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information. No Expiration

Spamfire from Matterform Media

You don't have to put up with unwanted junk email. Spamfire from Matterform Media removes unwanted commercial and pornographic email from your in-box. It works with any POP3 email account and any email program (support for IMAP, Hotmail and AOL is still in development). Spamfire uses intelligent, fuzzy-logic filtering to identify spam and protect messages you want to keep. Automatic internet updates ensure you always have the most advanced spam protection available. Spamfire works in OS 9 and OS X and is a Mac-only product.

Mac User Group members can purchase Spamfire for just \$23, more than 20% off the regular price. Box & CD, regular price: \$39 (MUG price \$31) Download, regular price: \$29 (MUG price \$23) Download is good internationally. Box & CD is available only in the US.

Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information. Offer Expires: No Expiration

macHOME Subscription Offer for MUG Members Only

With over 11 years experience, macHOME is dedicated to providing smart, practical and easy-to-read Mac advice and information. macHOME offers insightful reviews, creative how-tos and straightforward buying guides.

MacHOME is pleased to offer Mac User Group members a 50% discount off of our regular subscription prices. For only \$14.99 new subscribers can receive 12 issues of

macHOME—that's only \$1.25 an issue!

Don't waste another minute—take advantage of this special offer today!

Normal Price: \$29.95 UG Price: \$14.99 (New subscriptions only) Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information. Offer Expires: No Expiration

AppleWorks User Group Keeping Up with AppleWorks

User group members can now get the latest AppleWorks news sent right to their email mailboxes - courtesy of the AppleWorks Users Group (AWUG).

Just register for AWUG's free AppleWorks News Service and AWUG will send you occasional email messages with the latest AppleWorks news including announcements of AppleWorks updates and workarounds for common problems.

To learn more and to register, visit AWUG's website at <http://www.awug.org> and click on "AWUG's AppleWorks News Service".

This is a free service for the user group community from the AppleWorks Users Group. AWUG respects your privacy - AWUG does not sell, exchange or distribute the email addresses of subscribers to their services.

UG Price: Free Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information. Offer Expires: No Expiration

Macintosh Batteries - Only \$7 from The Appleworks User Group

Every Macintosh contains a small battery that your system uses to run its internal clock and to "remember" your printer and other system settings. You'll know when this battery runs down - your clock will not work correctly, your files will be dated incorrectly, and your Mac will repeatedly "forget" which printer you use and will default to its built-in settings.

Apple user group members can now buy replacement backup batteries for their desktop Macintosh systems directly from the AppleWorks Users Group for only \$7. (Batteries for Performa 630-series computers cost \$10.95.) Each battery includes installation instructions and the promise of "satisfaction guaranteed or your money back." AWUG's lithium batteries have a 10-year shelf life - if your computer is more than two years old, you should consider ordering a spare battery for the day your original battery fails.

These batteries are for desktop Macintosh systems only. AWUG does not supply backup batteries for PowerBook or iBook computers because those batteries are not user replaceable.

To qualify for this special discount price you must identify the name of your user group, the model of your desktop Macintosh and provide your shipping address and credit card information when you order. Please add \$2 U.S. s/h per order. (International orders by credit card only; international shipping additional.)

AppleWorks Users Group, Box 701010, Plymouth, MI 48170; (888) 781-AWUG; Fax: (734) 454-1965; email: orders@awug.org; <http://www.awug.org>.

Normal Price: \$10.95 UG Price: \$7 Order URL: Available by: • MUG Members: Contacting your Macintosh User Group Leader or Ambassador • MUG Leaders: By contacting their Apple Regional Liaison team member Offer Expires: No Expiration

\$5 Discount from AppleWorks User Group

The AppleWorks Users Group (AWUG) offers members of Apple user groups a \$5 discount on their AWUG membership.

AWUG members:

- Receive the AppleWorks Journal, AWUG's 24-page newsletter filled with helpful AppleWorks how-to articles, tips, ideas, projects and the latest AppleWorks news.
- Qualify for free AppleWorks email and telephone technical support from AWUG's 65 volunteer consultants.
- Have unlimited access to AWUG's extensive on-line collection of AppleWorks templates, graphics and utilities. (This service is free for the first year of membership and costs \$10 per year for renewing members.)
- Get special discounts on AWUG-recommended AppleWorks books, training materials and AppleWorks add-ons.

A one-year AWUG membership normally costs \$39.95, however Apple user group members pay only \$34.95 for a full year of the AppleWorks Journal (10 issues) and a one-year membership in AWUG. To qualify for this \$5 discount, you must indicate that you are a member of a local Apple user group when you join AWUG.

AppleWorks Users Group, Box 701010, Plymouth, MI 48170; (888) 781-AWUG; Fax: (734) 454-1965; www.awug.org Check the Washington Apple Pi TCS (tcs.wap.org) / Classifieds Conference / More Member Specials for further information.

Normal Price: \$39.95 UG Price: \$34.95 No Expiration ■

Washington Apple Pi Tutorials Sept-Oct 2004

New Classes

WE HAVE completely revised the Mac OS X New User class series and added an additional optional class, How to Get Connected to the Internet. Look for additional classes and changes in the next Journal. Between Journals, be sure to check the Pi calendar at <http://calendar.wap.org/>, the TCS, and the WAPi Electronic Newsletter for additional classes and information.

Class Locations

At this time, all our classes are held in the classroom located in the Washington Apple Pi office at 12022 Parklawn Drive in Rockville MD 20852.

Sign-ups

To sign up for a class send 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 or call the Washington Pi office on Monday, Wednesday or Friday from 10:00 a.m. to 2:00 p.m. to pay by credit card. The address is 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 possible cancellations.

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 re-

viewed. Send a message to tutorials@wap.org and include your phone number.

Mac Basics

Mac OS X for New Users 1 — The Desktop and Mouse Wed, Sep 8, 2004, 9:30 AM to: 12:30 PM Sat, Sep 11, 2004, 1:00 PM to: 4:00 PM Wed, Oct 6, 2004, 9:30 AM to: 12:30 PM

This class begins with a quick overview of the Macintosh. It identifies what you see on your computer screen. It continues with a complete description of the mouse and how to perform actions such as clicking, double clicking, press, press-and-drag and trackpads. The session ends with information on how to use the dock. Instructor: Pat Fauquet or Nancy Little Member Cost: \$50.00, Others: \$100.00 Prerequisites: None Location: WAP Classroom For information on sign-ups, policies and the inclement weather policy, go to

<http://www.wap.org/classes/>.

Mac OS X for New Users 2 — Finder Windows and the Menu Bar Wed, Sep 15, 2004, 9:30 AM to: 12:30 PM Sat, Sep 18, 2004, 1:00 PM to: 4:00 PM Wed, Oct 13, 2004, 9:30 AM to: 12:30 PM

The Finder window and the menu bar are the topics for this class. Topics will include window views, resizing, scrolling, the sidebar and window buttons. It will also include how to use the menu bar, contextual menus and an introduction to keyboard shortcuts. Instructor: Pat Fauquet (Mon, Wed) or Jim Ritz (Thu) Member Cost: \$140.00, Others: \$190.00 Course Prerequisites: Mac OS X for New Users Session 1

Mac OS X for New Users 3 — Using Applications Wed, Sep 22, 2004, 9:30 AM to: 12:30 PM Sat, Sep 25, 2004, 1:00 PM to: 4:00 PM Wed, Oct 20, 2004, 9:30 AM to: 12:30 PM

This session will cover how to open and use an application, how to save and print a document, and how to close documents, quit applications and how to use the trash. Copying, cutting and pasting will also be covered along with formatting documents and typing spe-



Phil Shapiro watches the festivities at the Pi's 2004 Summer Picnic. (Photo by Dick Rucker, taken with a Sony DSC-S70 digital camera.)

cial characters. Instructor: Nancy Little Member Cost: \$50.00, Others: \$100.00 Prerequisites: Mac OS X for New Users Sessions 1 and 2 Location: WAP Classroom

Mac OS X for New Users 4 — How to Surf the Web and Use E-mail Wed, Sep 29, 2004, 9:30 AM to: 12:30 PM Sat, Oct 2, 2004, 1:00 PM to: 4:00 PM Wed, Oct 27, 2004, 9:30 AM to: 12:30 PM

Using Safari to access Web pages and addresses will be covered in this class. It will also cover links, bookmarks, search tools and the use of Sherlock. The second half of the class will cover using Mail to send and receive e-mail, sending and receiving attachments and how to use the Address Book. Instructor: Nancy Little Member Cost: \$50.00, Others: \$100.00 Prerequisites: Mac OS X for New Users Sessions 1, 2 and 3

Mac OS X New Users — How to Get Connected to the Internet Wed, Sep 15, 2004, 1:00 PM to: 4:00 PM Wed, Oct 13, 2004, 1:00 PM to: 4:00 PM

This class explains what an Internet Service Provider is, how to choose one and how to configure your computer to connect to the Internet. Discussion will include dial-up vs. high speed service, AOL, Earthlink, Washington Apple Pi's Explorer Service and other local ISPs. Instructor: Pat Fauquet or Nancy Little Member Cost: \$50.00, Others: \$100.00 Prerequisites: None Location: WAP Classroom

Mac OS X 1- The Finder, Menus and the Dock Thu, Sep 16, 2004, 9:30 AM to: 12:30 PM Thu, Oct 7, 2004, 9:30 AM to: 12:30 PM Thu, Oct 28, 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 Location: WAP Classroom

Mac OS X 2 - Users, Saving, and Finding Thu, Sep 23, 2004, 9:30 AM to: 12:30 PM Thu, Oct 14, 2004, 9:30 AM to: 12:30 PM Thu, Oct 28, 2004, 1:00 PM to: 4:00 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 Location: WAP Classroom

Mac OS X 3 - Using the System Preferences Thu, Sep 30, 2004, 9:30 AM to: 12:30 PM Thu, Oct 21, 2004, 9:30 AM to: 12:30 PM Thu, Nov 4, 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 Ritz Member Cost: \$50.00, Others: \$100.00 Prerequisites: Intermediate Macintosh Skills Location: WAP Classroom

Continuing Mac

Getting the Most from Your .Mac Account Mon, Oct 4, 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. Bring your digital camera full of images, a Zip 100 MB Disk or CD with digital images to use in class. This is an all-day class. Instructor: Pat Fauquet Member Cost: \$100.00, Others: \$150.00

Prerequisites: Intermediate Mac Skills Location: WAP Classroom

Installing Updates, Downloads, and Software Thu, Sep 23, 2004, 1:00 PM to: 4:00 PM Thu, Oct 14, 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 Mac Skills Location: WAP Classroom

Troubleshooting Computer and Printer Problems Thu, Sep 30, 2004 1:00 PM to: 4:00 PM Thu, Oct 21, 2004, 1:00 PM to: 4:00 PM Thu, Nov 4, 2004, 1:00 PM to: 4:00 PM

There are certain things that should be done to keep your Mac running in top condition. When a problem occurs, there are procedures you can use to fix the issue. Learn basic troubleshooting and maintenance in this three hour class. Instructor: Jim Ritz Member Cost: \$50.00, Others: \$100.00 Course Prerequisites: Mastering OS X

Productivity

AppleWorks Word Processing Wed, Sep 22, 2004, 1:00 PM to: 4:00 PM Wed, Oct 20, 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: Nancy Little Member Cost: \$50.00, Others: \$100.00 Prerequisites: Intermediate Mac Skills or concurrent enrollment in the Mac OS X New User Series. Location: WAP Classroom

Introduction to Spreadsheets Thu, Sep 16, 2004, 1:00 PM to: 4:00 PM Thu, Oct 7, 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. This course is taught in one three hour session. Instructor: Jim Ritz Member Cost: \$50.00, Others: \$100.00 Prerequisites: Intermediate Mac Skills Location: WAP Classroom

Digital Imagery

Introduction to Digital Photography Mon, Sep 20, 2004, 9:30 AM to: 12:30 PM Mon, Oct 18, 2004, 9:30 AM to: 12:30 PM

You need some basic information to help you make the leap from film to digital photography... What does digital mean, how do digital cameras work? What is digital film? How do you import, organize, edit and print your photos. Those topics and a few more will be covered in this class aimed at beginning digital photographers. Bring your camera, manual and accessories if you have them. Instructor: Pat Fauquet Member Cost: \$50.00, Others: \$100.00 Prerequisites: None Location: WAP Classroom

Using iPhoto Mon, Oct 18, 2004, 1:00 PM to: 4:00 PM Mon, Sep 20, 2004, 1:00 PM to: 4:00 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. This course is offered as one three hour session. Instructor: Pat Fauquet Member Cost: \$50.00, Others: \$100.00 Prerequisites: Intermediate Macintosh Skills Location: WAP Classroom

How to Fix a Bad Photo Mon, Sep 27, 2004, 9:30 AM to: 12:30 PM Mon, Oct 25, 2004, 9:30 AM to: 12:30 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 Mac Skills Location: WAP Classroom

How to Make Great Prints Mon, Sep 27, 2004, 1:00 PM to: 4:00 PM Mon, Oct 25, 2004, 9:30 AM to: 12:30 PM
Bring your printer, its software and some digital

photos to class. We will explore how to get great results and how to choose the best paper for your project. 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, Others: \$100.00 Course Prerequisites: Mastering OS 9 or Mastering OS X and How to Fix a Bad Photo

Selections and Layers in Photoshop Elements Mon, Oct 11, 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. Instructor: Pat Fauquet Member Cost: \$50.00, Others: \$100.00 Prerequisites: Intermediate Mac Skills and How to Fix a Bad Photo

Digital Photography Clinic Mon, Oct 11, 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 opportunity to ask questions about Adobe Photoshop Elements or iPhoto and they will learn new techniques. Bring your camera and projects to class. Instructor: Pat Fauquet Member Cost: \$50.00, Others: \$100.00 Prerequisites: Intermediate Mac Skills Location: WAP Classroom ■



David Harris takes a look at the lake at the Washington Apple Pi 2004 Picnic. (Photo by Richard Sanderson, taken with a Nikon D-100 digital camera.)

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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

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