# washington Apple pi general meetings

## 9 a.m.-noon

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

**Getting to NoVa: take Exit 52 West onto VA 236 (Little River Turnpike)**

**January**
MacWorld SF Review
Jan. 26, 2002

**Future meetings**
Feb. 23
Mar. 30
Apr. 27
May 18

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



VA

495

DC

MD

236    236

Northern Virginia
Community College

395        95

95
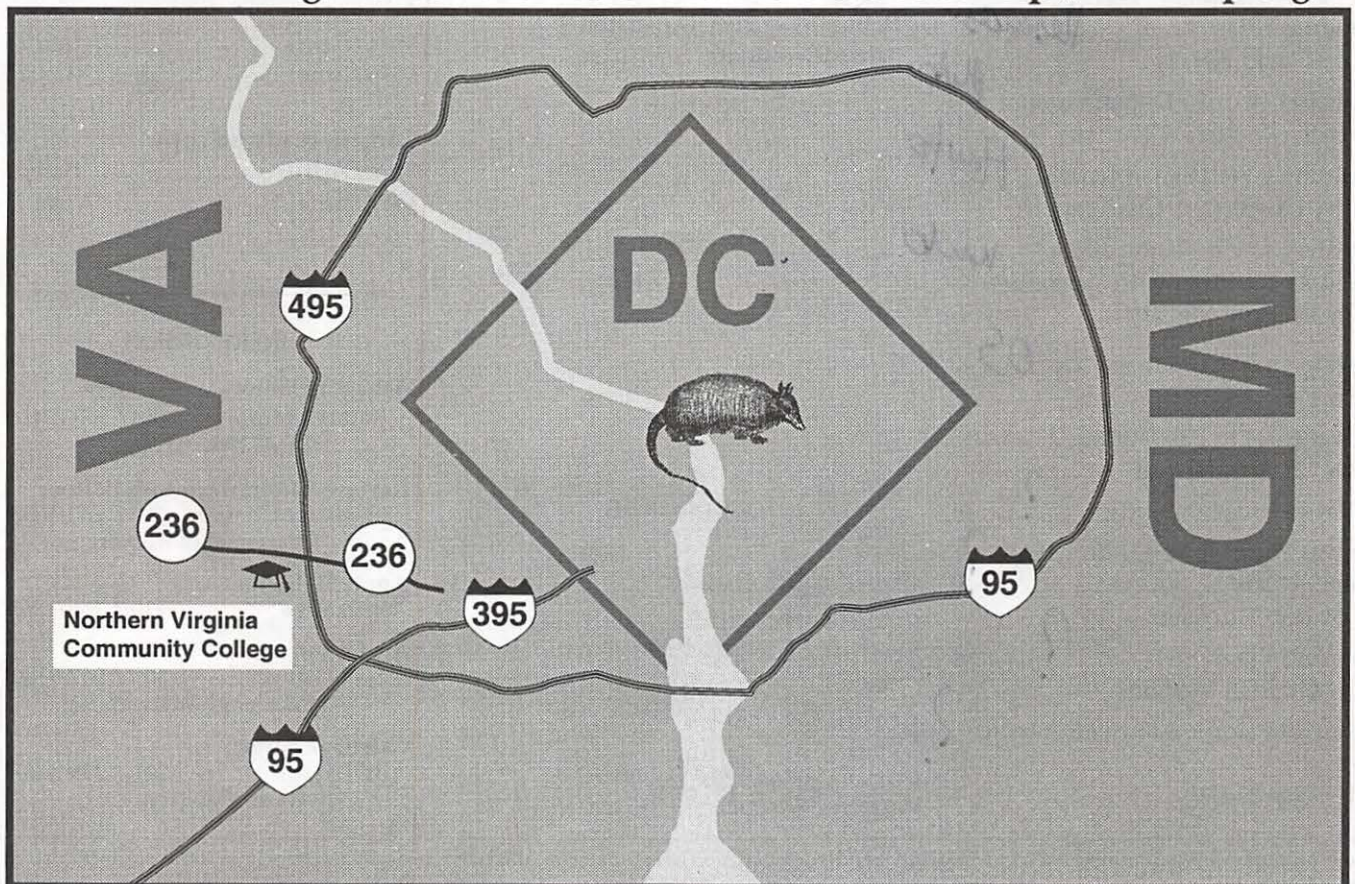
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### Deadlines

**Writers' submissions**
Mar./April. ............................ Jan. 25
May/June .............................. Mar. 25

**Ad space reservations**
Mar./April. ........................... Jan. 25
May/June .............................. Mar. 25

**Camera-ready ad copy**
Mar./April. ............................ Feb. 1
May/June ............................. April 1

# Washington ⎵pple Pi

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

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

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

## Advertising in the Journal
### (available sizes)

Full Page
7.5" x 10.0"
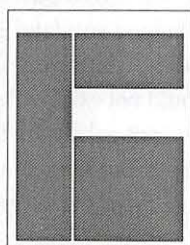
Third Page (vert.)
2.5" x 9.5"

Sixth Page (hor.)
5.0" x 2.5"

Third Page (hor.)
5.0" x 4.75"
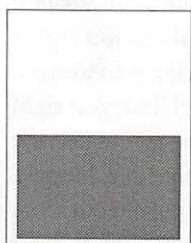
Half Page
7.5" x 4.75"
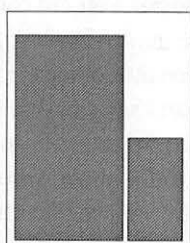
Two-thirds Page (vert.)
5" x 9.5"

Sixth Page (vert.)
2.5" x 4.75"

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

Special guaranteed positions incur a 10% surcharge

## Ad Deadlines

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

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

# Welcome to WAP!

### By Dave Ottalini

OK SO IT was raining and a bit cool. Those of us who have attended WAP's world famous Computer Show and Sale are used to adversity. We're willing to leap tall buildings. We're even willing to walk what seems like miles to get that one, special bargain we were likely not even thinking about when we first got there.

Washington Apple Pi's Computer Show and Sale is likely the largest "garage sale" for Mac computers on the East Coast. I hope you made it even for a little while. The December show is special because it comes just as the holidays are getting into full swing. And on the heels of September 11th, this was one more event that helped to show that we are trying to get things back to normal.

I hope that if you did go, you noticed all the WAP volunteers running around. If you needed advice, had some memory to install or a computer to check, wanted to buy WAP's newest Pi Fillings disk it's likely a volunteer helped you (and if not, it was probably our Office Manager Beth Medlin). Volunteers are integral to WAP's success as a User Group. We could not exist without them. They ARE Washington Apple Pi. Folks who not only share the common ownership of a computer made by Apple, but who genuinely want to help other members— and potential members — get the most out of their computer experience.

As a new member, you are coming into the club at an exciting time. We need your input, your help, your desire to take us to a higher plane. Nothing is too little or too big where volunteering is concerned. Just call the office and say what can I do? One thing I'll suggest right now. Make it your goal this year to get one more person to join the club. If everyone did that, we would double our membership and strength. We could complete projects, increase tutorials, put out more CDs. Have more fun than we do now. You get the idea.

In any case, we hope that by joining, you will find a group of friends who all enjoy knowing they are part of something special. And beyond that, can turn a little energy into action that all will benefit from. Welcome to WAP!

*One last note: I want to personally thank Beth Medlin for all of her years of service to Washington Apple Pi as our Office Manger. "Thank You" is really not enough for her. She was in essence the "glue" that helped keep this club together and her legacy is an organization that is financially healthy and hopefully ready to take on the challenges of the 21st century. Beth, you're the best! We will miss you.* ∎

*If you have any questions please contact me at dave.ottalini@wap.org*

# New Year's Report

"... the only help you can really count on comes from your friends and family."

THE AUTHOR is Rob Pegoraro. He writes about technology issues for the Washington Post. His December survey of home computers had a section in it on the quality of technical support you can expect after your purchase. The full quote is:

"Technical support: Sad to say, we've yet to find a manufacturer whose help, year after year, remains excellent. Toll-free tech support and a longer period before you have to start paying for assistance over the phone are good, but the only help you can really count on comes from your friends and family."

So, here is the question. What do you call it when you combine friends and family? I say you get a user group like the one to which you belong - Washington Apple Pi. Let me recount the ways in which we do it for each other and why it is that when it comes to great Macintosh support you can really count on the Pi to be your friends and family.

The Pi is a membership organization whose sole

"What do you call it when you combine friends and family? I say you get a user group like the one to which you belong - Washington Apple Pi....when it comes to great Macintosh support you can really count on the Pi to be your friends and family."

purpose is to be of value to you. After all, if we don't provide valuable programs and services to you, things that address your computing needs, then why bother renewing? Just look at what we offer that you can really count on day in and day out.

### On-line services

The web-based TCS is one of easiest ways for you to chat with other members about your Macintosh, the programs you run or the update you are struggling to master. It is also the fastest and most complete way

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for you to get technical assistance from other members of the Pi rather than searching around the ethers in hopes that someone will respond to your plea.

### Monthly Meetings

Each month, we invite representatives from the computer industry to talk to you about their products. Each meeting is preceded by a question and answer session where any question is a good one. Most of our speakers offer special prices on their merchandise to those who attend and, as always, there are door prizes. Your membership makes all this possible and easily pays you back with one purchase from one of these meetings.

### Maintenance Night

The Pi is one of the few groups that assembles knowledgeable volunteers to assist you with the installation of software, memory or general repairs. If your Macintosh is out of warranty, we are here to help you. If you use any Apple II series or early Mac computer, we are about the only place to go. We have, or know where to find the hardware and software to keep Apple's computer line running. Go out on the street and price the installation of RAM or a battery or just the diagnosis of what may be ailing your machine. You will quickly discover the value of your membership.

### Classes

Whether it is an introduction to the Macintosh, word processing, desktop publishing or some facet of travel on the Internet, we offer you classes by practitioners, at members' rates. For those of you transitioning to Mac OS X, we offer transition classes as well. These will be especially useful to you if you buy one of the new desktop Macs that only runs in OS X.

### Journal of Washington Apple Pi

From tips and hints on the operating of your computer to no fluff reviews of current applications, your Journal is full of useful information written for you by other users like yourself. We also keep you abreast of issues on the periphery of the computing world so that you are that much more knowledgeable about where all this is headed.

### Recycling your Macintosh

Thanks to your continued support of the Pi, it is possible for us to introduce the Macintosh to families and groups who would not otherwise have access to computers. This past year we have given away hundreds of completely refurbished Macs of all types, or fulfilled specific hardware needs of schools, families, and other non-profit organizations. Groups have come to the Pi from South Carolina to as far north as New York State to pick-up refurbished Macs. If you stop in to Budapest, Hungary or Karnortaka State, India, you will find Macintosh computers which were rebuilt by members of the Pi and provided to national organizations that fund their transshipment. On your behalf, we provide the regional Veterans Administration rehabilitation hospitals and the juvenile justice systems for both the state of Maryland and the District of Columbia with complete units. There is even a library in the town of Heathsville, Virginia that has Macintosh computers for residents to use thanks to your support of the Pi. Give yourself some credit the next time you think about what we are doing.

### Day-in and Day-out

Washington Apple Pi is not just around when your Journal arrives or on a Tuesday evening should your computer have gone sprong. It is warm bodies, a living breathing contraption made up of lots of thems. Thems contribute answers on the web TCS; thems pitch in at general meetings to help new members with their tentative questions; thems send the office ideas for new things to be included on our CD series and topics for this magazine; and thems help make our clinics the knowledgeable resource that you rely upon.

You don't have to be a computer expert to help. There are lots of ways, fun ways, you can help from providing occasional assistance to the office staff, to informing your Macintosh-owning friends of our existence, to just inviting your friends to meetings. Helping us helps both of us grow. Any contribution from you is gratefully accepted. Then you become a them.

Just never forget that when ". . . the only help you can really count on comes from your friends and family." we're the best thing we've all got.

—*Lorin*

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# WAP's December Garage Sale— Another Success!!

THE DECEMBER EVENT just rolls and WAP and the vendors do well. It has always been the most popular and best attended of the sales.

Dave Harris deserves special thanks for not only getting the tables ordered and delivered, but also taking the vendor sheets from the last three Garage Sales and trying to read the email addresses and sending previous vendors notice of the sale. We got a lot of feed back so we had Steve Fink read them all before the day was over so that we could get a better list for Dave for the June garage sale.

Thanks to Dan White for working with the college and setting up on Friday and running the consignment table with Brian Mason, Brian's son, and Herbert Block.

Ned and Mary Langston both worked at the show and Ned also took Friday and Saturday off to do the show as personal leave which he had to defend. Not easy, given his job. At any rate Ned came by with his van empty on Friday and took 90 percent of the stuff from the office to the garage sale. Ned also let us use his van to transport stuff back to the office. Anything remaining unsold was brought back the night of the Board meeting. Ned also manned the loading dock the whole day without a relief person. Considering it was raining this was way beyond the call of duty. Next sale we need more volunteers to make sure it does not happen again. No one should be asked to man one station for the whole day - 6 am till 4 pm.

Pat Fauquet not only helped to pack down and organize the sale but also went to the store and purchased all the food for the concession table and with the help of Mary Langston, Paige Counts, Carol Weikert and Madeline Yeh ran a very successful table.

Dave Harris, Tom Witte and Ron Fauquet (yes Pat's husband) sold entry tickets.

Grace Gallager, Ken Franklin and Steve Fink sold the tables at the sale.

Laszlo Vajda, Lou Dunham, Scott Poit and Lorin Evans worked the Clinic table.

"Pat Fauquet not only helped to pack down and organize the sale but also went to the store and purchased all the food for the concession table and with the help of Mary Langston, Paige Counts, Carol Weikert and Madeline Yeh ran a very successful table."

John Barnes ran a question and answer table where he brought his powerbook and projector to answer and show people how to do specific things that they had questions about. A number of people commented that they really liked having a person who did this.

Tom Witte once again acted as the front man and ran the door prize contests with the number picker program.

Mary Keene, Dale Smith, Dick Sanerson, and Arthur (last name not known at this time), put up signs and flyers, pulled hotlines from Journals to be given away and generally answered questions.

George Copley and Dave Ottalini helped out during the day and also took pictures of the event. Thanks to Dave for forwarding a select number that are included in this journal.

Mary and Colleen O'Brien helped at the office table. They are the daughters of Robert O'Brien— you know the twins that come to meetings and help Beth as well.

Bob Russell helped at the end with the clean up and break down.

Ken Claire assisted both at the sale and during setup on Friday.

Dave Ottalini did his usual good job of publicity for the show and sale with his press releases. The Washington Post ad was placed by Lorin and the Fast Forward section of the Post had us listed as a weekend event in their section.

Pi Fillings - the CD version 9 arrived in time to be sold at the show and sales went well. On the whole it was a good day with a steady flow of people pleased to find lots of good Mac products to buy. ■

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# SIGs

### by David Harris

SIG STANDS for Special Interest Group. In computer user groups like ours it is a group of people interested in some sub-category of computer using. At the time I write this article, there are three active SIGs that meet in person: the Graphic Arts SIG, Excel SIG and the Retired SIG. The StockSIG (Wall Street & $) meets online on the TCS. In the past we have had groups interested in ClarisWorks, Games, QuickTime, Disabled, Women's, and other activities and interests. Recently a new member suggested that he was interested in heading a revived SIG, and, after inquiries were made, it was found that there was quite a bit of interest in re-starting the Genealogy SIG. Maybe by the time you read this it will be active again.

### Requirements

A Washington Apple Pi SIG only has to have five WAP members sign up, meet on a regular basis, have a chair person, and a secretary to send SIG news to the Journal. A new SIG must apply to the board of directors (BOD) with a short summary of its plans and the list of at least five members. It should have a member (or more than one) to establish a liaison with the Webmaster and work with the TCS crew if outlets there are desired. Someone has to notify the keepers of the calendar for meeting times and special events.

### Advantages

The best part of a SIG is the pleasure of meeting with other people with the same interests! Learn how to use your favorite software. Get help when you have a problem. And SIGs are eligible for up to $100 reimbursement from WAP for their activities—small amounts of refreshments at your meetings, mailing expenses, whatever.

Once the Board of Directors approves a SIG, it can have a space in the Journal, a message board established on the TCS, and use Pi office facilities. It may have a page, or a whole bunch of pages, on our Web site. SIGs can arrange with the office manager for meeting times at the office or meet elsewhere, if they wish.

If you are interested in joining a SIG, there is a list of contacts in the front pages of the Journal. If you want to form a new SIG, or learn if the Genealogy SIG is underway, get in touch first with me: I am the "SIG and Slice coordinator " — <david.harris@wap.org>.

### The legal stuff

*Siggy*

Here is what the Pi by-laws say about SIGs:

ARTICLE X - SPECIAL INTEREST GROUPS AND SLICES

SECTION 1. FORMATION. The Board of Directors may establish special interest groups (SIGS) to provide a forum for exploring topics of special concern to a portion of the membership. Among the factors to be considered by the Board of Directors in recognizing a new special interest group are: whether the group conducts regularly scheduled meetings which it announces in the WAP Journal and whether it has at least five members.

SECTION 2. ORGANIZATION. Each special interest group shall elect from among its members a Chairman and Journal Columnist. The election of special interest group officers shall be conducted annually during the month of October, under the supervision of the Board of Directors. Each special interest group shall publish an account of its activities in the WAP Journal. [Amended November 1983.]

SECTION 3. LIMITATION OF AUTHORITY. No special interest group shall act in the name of or take any action which would bind the Corporation.

SECTION 4. DUES. No special interest group shall collect dues or contributions without the permission of the Board of Directors. [Amended December 1982.]

So, you see, it's not that complicated! ∎

# Slices

by David L. Harris

"SLICES" OF Washington Apple Pi (see Figure 1) are groups of WAP members who live so far away from the D.C. metro area that it is most convenient for them to have local groups. At present there are three active slices, all in Maryland: Annapolis Apple Slice, Columbia Apple Slice, and the Frederick Apple Core.

## Requirements

Slices are formal organizations that must submit a standard application to the WAP board of directors. According to the formal outline, to be considered as a Slice of WAP, the group must:

- be located at least 25 miles from the WAP office;
- have at least five member who are members of WAP;
- have elected officers who are members of WAP; and
- have made arrangements for a meeting place.

In addition, Slices are responsible to have elections, report activities for inclusion in the Journal, and submit a treasurer's report to the Pi. The term "Slice" and the name of the particular Slice are properties of the parent organization.

## Benefits

As with Special Interest Groups, Slices are a fine way for people with Macintosh computers to get together and discuss problems, have presentations, and meet new friends who have common interests. Smaller, more intimate, and informal meetings may be an attraction for some people, too.

Slices are eligible for $100 per year support from the parent organization. Approved Slices may have a board on the TCS, and may coordinate with the Webmaster to have a Web page, or a whole bunch of Web pages, on the Pi's servers. Association with the Washington Apple Pi may be a benefit in other ways: in attracting members or presenters at local meetings, gaining eligibility for special user group bargains, and achieving wider dissemination of information about the Slice than they might be able to achieve on their own. At one time, before the advent of Web-based access to the TCS, the Pi organized at least one telephone line so that Slice members could connect via a local telephone call.
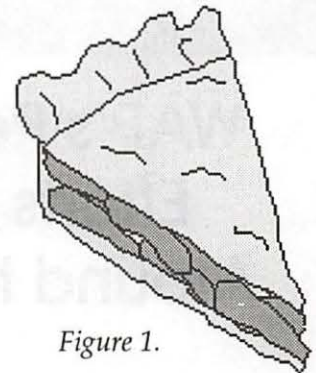


Figure 1.

## Legal Stuff

Here is what the Pi by-laws say about Slices:

SECTION 5. SLICES.

The Board of Directors may recognize groups of WAP members outside the Washington, D.C. area as "Slices" of WAP. Slice members shall be entitled to the full benefits and privileges of membership in WAP. In all other respects, the Board of Directors shall have the power to regulate by resolution the formation, activities and dissolution of Slices. The officers of a Slice shall be given notice whenever feasible of any action to be taken by the Board or the membership involving the activities of the Slice. No Slice shall act in the name of or take any action that would bind the Corporation. [Adopted July 1986.]

As SIG and Slice coordinator I have been to one Frederick Apple Core meeting and two Annapolis Apple Slice meetings. Getting to a Thursday night meeting when the Columbia Slice gets together hasn't seemed like an attractive proposition, and I have not been to any of their meetings. Being at the meetings showed me that Slices, by the very nature of their distance from the Rockville office, have to be mini-user groups all on their own. They have to operate pretty independently, and the board so far has tended to let them alone, even if they don't strictly meet some of our formal requirements.

Each of the three active Slices has its own Web page, and you can visit them by going to:

Annapolis Apple Slice <http://www.annapolisappleslice.org/>

Columbia Apple Slice <http://www.wap.org/columbia/>

Frederick Apple Core <http://www.wap.org/frederick/>

Go there and get a taste of a Slice of Washington Apple Pi. ■

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# WAP's Recycling Efforts Reach Around the World

By Dave Ottalini
WAP VP for Publicity

O NE OF THE things Washington Apple Pi does best is recycle computers back into the community. That "community" however doesn't stop with Washington DC and its suburbs. Our backdoor is, in fact, the entire world. Take the Nuns of Jamyang Choling Institute in Tibet. Their need for a computer was brought to the club's attention a little over a year ago by an American supporter -Ann Waters (watersann@yahoo.com) of the District. WAP President Lorin Evans put together a complete Power PC system that included a CD drive, software and a printer.

Off it went and Ann reports that the Mac system has been a big hit: "I went back there again just last summer and they were very happy with it and using it a lot," she told my by email.

I asked if the nuns might like to tell us a little bit more about what they were using the system for and they were kind enough to send along the following note through Ms. Waters:
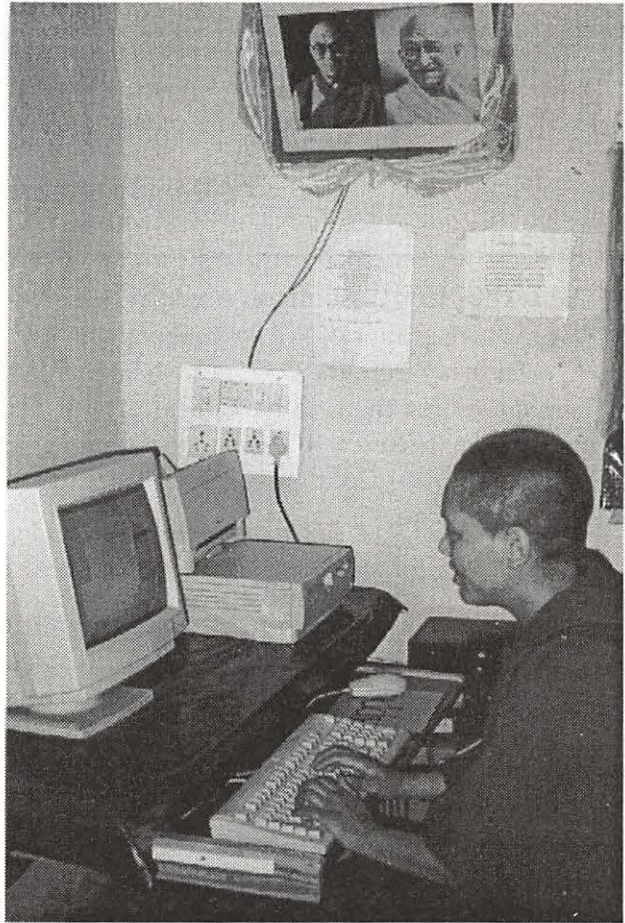

Tenzin Palyon is the Store's Keeper

*Dear Washington Apple Pi:*

*Thanks so much for providing us with our first computer. Our secretary, Lobsang Choeden, took a computer course and will pass on her knowledge to the other nuns later on. In the meantime as many nuns as possible are using the typing program to acquire their keyboarding skills.*

*The computer has been very useful to us in a number of ways. First of all we really used it a lot this year to contact our sponsors because our American director, who used to do all the paperwork, resigned. Each of the 49 nuns has a sponsor who needs to be regularly updated on the news of the nunnery.*

*We have put Tibetan script into the computer so that we can correspond with the Tibetan government-in-exile. We have also entered review exam questions in Tibetan so we can better study Buddhist philosophy and Tibetan grammar. Our only regret is that we have not been able to use the printer because we cannot get the appropriate cartridges.*

*If you wish to contact us directly our email address is: jamyangcholing@yahoo.com. Thanks again for your generous donation which has helped us get through the difficult transition to self-management.*

*Sincerely, Nuns of Jamyang Choling*
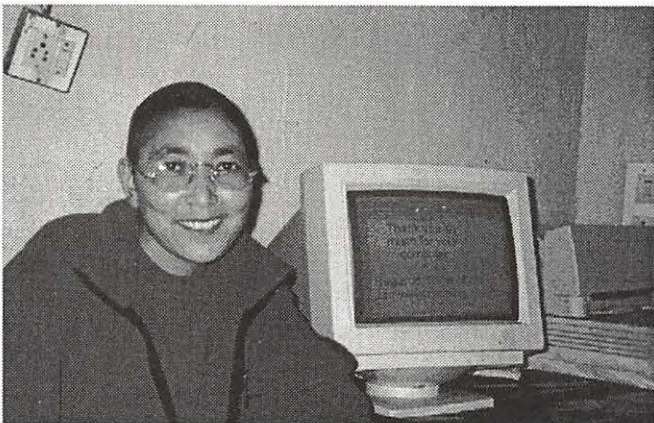

*Tenzin Chozom is the Nunnery's Discipline Master and Assistant Secretary.*

# Wanted: New Blood

There are some Pi members who have been with the organization for nearly a quarter century. And there are some Pi leaders who have been leading the organization for most of their adult lives.

These leaders want to turn the controls of the Pi over to a new generation, or two. Just as they moved from Apple IIs to Macs, Power Macs, Power Mac G4s and iPods, they'd like to see the Pi move on, too.

Who will lead us forward into this new era? You can. Just nominate yourself or another Pi member to be on the Board of Directors for the 2002-2003 term. Nominations are due no later than Feb. 23, 2002. E-mail nominations to: **secretary@wap.org**, or mail them to:

**Nominations
c/o Secretary
Washington Apple Pi
12022 Parklawn Drive
Rockville, MD 20852**

**Positions available:**
President
Vice President Programs
Vice President Publicity
Vice President Membership
Vice President Volunteer Services
Secretary
Treasurer
Director (8 positions)

**WASHINGTON APPLE PI**

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# Have You Tried OS X?

© Pat Fauquet

W HAT A QUESTION, and what a wide variety of answers I have read on the Web, around Washington Apple Pi, at computer dealers, and even at the December Computer Show and Sale.

Some Mac users remind me of Apple II users in 1984. There was no way they wanted to try something new. They were comfortable with their computers and could see no reason why ANYONE would EVER want to try that newfangled Macintosh that Apple was trying to foist off on them. While some users could not wait to try this new technology and lined up to gaze appreciatively at the new computers they kept buying the last of the old machines and assuring each other that someone would be able to convince Apple to sell rights to a new company who would make the "old" better, but still "old." The new machines made their way to people's wish lists and by the time the Apple II line disappeared, these same people were eying System 7 warily and avoiding its adoption. When the PowerPC Macs arrived they clung to their old slow machines. When the iMacs arrived, they hung back once again and eyed the new technologies with great suspicion. They bought USB floppy drives, gadgets to hook up new "old" printers and scanners that they were finding cheap on close-out tables since surely USB would never be supported by anyone but Apple. They grabbed up Newtons before they disappeared. They clung to SCSI even though are no great solutions to use it on iMacs. Now they are certain that someone at Apple will see the light and kill off this new fangled operating system and restore the old one with all its problems. These people never change, but the computer world marches around them to move forward.

So now, which camp of computer users are you in. Do you dread new technologies and hold on to the old, comfortable way until it disappears or are you an early adopter, someone who enjoys being on the bleeding edge, even if it means questions without answers in

"Reading magazine articles and web pages about reasons not to use OS X and listening to the woes of people who hate anything new is NOT learning OS X, but avoiding the inevitable. OS X is here to stay. "

every book, and perhaps having to wait for that next piece of software, driver or bug update to solve some annoyances. Or perhaps you follow a middle road.

If you are one to wait a while, at what point do you begin the transition to the new OS? As for myself, as soon as a new technology is announced, I begin a deliberate transition to it. Remember when Apple announced the end of the serial cables and SCSI? I had plans to buy several items, but a new computer was several years in the future. Instead of running out to snap up the old equipment at bargain basement prices, I put my money away and waited until the first PCI USB cards hit the shelf. By that time I was ready for a new modem, so I bought both the card and the modem rather than spend money on the old technology. I needed a larger hard drive. Rather than buy an external SCSI drive, I bought a PCI card that would allow me to add an internal IDE drive inside my beige G3 tower. When I wanted to try iMovie, I replaced the USB card with one which had both USB and FireWire ports.

When Apple released OS X, I began looking for programs which would run both in the classic OS 9 and on OS X. I even delayed upgrading software that I suspected would have OS X version fairly quickly after their last upgrade. I checked places like versiontracker.com, macintouch.com, and Apple's OS X web site for information on shareware products and demos of commercial products and downloaded and tried out things that looked interesting. Although I am not much of a game player, I looked for a few good games that would encourage me to boot up OS X and spend time using it. I recommend JewelToy and FarmersMahJongg as two great games that are beautiful on the screen and easy to learn. I also downloaded GraphicConverter for OS X as I find myself using it

very often. Note the lack of spaces between words in the program names if you want to search for them. I also began using AppleWorks and browsing the web using OmniWeb or Internet Explorer for OS X.

The transition to OS X WILL take place for all Mac users who want to continue using Macintosh computers and buying new ones. Apple will ensure that. When OS X was first released, the CD for it was in the box . If you buy a new computer today it comes with both OS 9 and X installed and it will boot up in OS 9. I suspect that the new machines released after the January MacWorld will start up the first time in OS X. Probably the next step will be a CD for OS 9 that you must install. Finally, there will be no way to boot directly into OS 9 at all. This evolution will be slow and steady, but since most Mac owners keep their computers for more than a year or two, you may miss these transitional steps. Therefore it is important for everyone begin the learning process soon.

Reading magazine articles and web pages about reasons not to use OS X and listening to the woes of people who hate anything new is NOT learning OS X, but avoiding the inevitable. OS X is here to stay. It keeps getting better and better and more and more people are trying it and loving it.

It is easier to learn something new by slowly becoming comfortable with it. Begin by installing OS X on to your computer. Make a commitment to begin using it on a regular basis and increase your time in OS X gradually. Find a task that can be done in OS X and use it each time you do that task. Play with it, and when you are lost or frustrated, restart in OS 9, finish the task and then go learn more about OS X and try the task again soon.

In learning OS X, there are two ways to go about the process. The first is to say "In 9 I do this, now where in the h— did they shove that d—— thing into OS X. The second is to say let me take a look around, and when you discover how to something or where to find it, write a note about it, and at the same time think about the reason it might be at that location. Just like OS 9 is very logical, OS X makes a lot of sense, in fact it is really a natural evolution to the next step of making Macs even easier to use.

Some programmers are busy making "things" to make OS X look and work just like OS 9. Some OS X users seem to spend all their time looking for that "thing" to install into OS X. Why? New does not mean

"While some users could not wait to try this new technology and lined up to gaze appreciatively at the new computers they kept buying the last of the old machines and assuring each other that someone would be able to convince Apple to sell rights to a new company who would make the 'old' better, but still "old.' "

bad, it means improvement. Turning off features such as the dock, shoving all the old things under the Apple Menu, and re-instituting the control strip does not allow you to learn and explore OS X with the complete vision of a group of very competent programmers. Be open to the new features of the OS, give things a try, and you will probably come to love OS X.

It is important to make sure you are using the most up-to-date version of OS X. At this point it is 10.1.1, but that could change momentarily. Updates are made to fix bugs and add new features. A good example of this is the dock that was present in 10 and 10.01. Although it could appear and disappear, if it was in your way, you could not move it to a more convenient place. Now it can be at the bottom or on either side of the screen. Although I will cover updating in a separate article in this issue, don't forget about the "Help" menu. The directions are available there also.

Give OS X a try. It is beautiful, very stable, and the layout and features are very logical. Commit to finding things to do in X, Read articles about X with an open mind and look for information about how to use it. Soon you will find yourself looking for ways not to have to boot back into OS 9 and you'll wonder why you ever feared this great new operating system. ∎

*Pat Fauquet is a frequent contributor to the Journal. She teaches many classes for WAP and will begin teaching classes on OS X in February.*

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# Get In and Out of OS X



Figure 2.



Figure 3.

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**File  Edit  View  Create**

About Palm Desktop...
Help...                    ⌘?

🔟 Startup Disk
📶 AirPort
⊙ Apple DVD Player
🗄 Apple System Profiler
▤ Calculator
🗐 Chooser
🗊 Control Panels            ▶
📖 Favorites                ▶
▨ Key Caps
🖳 Network Browser
⊕ RealPlayer Basic
🖳 Recent Applications      ▶
🗐 Recent Documents         ▶
🖳 Recent Servers           ▶
🗗 Remote Access Status
🗊 Scrapbook
🗐 Screen Snapz             ▶
🔎 Sherlock 2
🗐 Speakable Items          ▶
🖉 Stickies

| Control Panels submenu |
| --- |
| Adobe Gamma |
| Appearance |
| Apple Menu Options |
| AppleTalk |
| ColorSync |
| Control Strip |
| Date & Time |
| DialAssist |
| Energy Saver |
| Extensions Manager |
| File Exchange |
| File Sharing |
| File Synchronization |
| General Controls |
| HP ScanJet Controls |
| iMic Control |
| Internet |
| Keyboard |
| Keychain Access |
| Launcher |
| Location Manager |
| Memory |
| Modem |
| Monitors |
| Mouse |
| Multiple Users |
| Numbers |
| ODBC Setup PPC |
| QuickTime™ Settings |
| Remote Access |
| Snapz Pro |
| Software Update |
| Sound |
| Speech |
| **Startup Disk** |
| TCP/IP |
| Text |
| Trackpad |
| USB Printer Sharing |
| Web Sharing |

Figure 1.



 Finder  File  Edit  View

About This Mac
Get Mac OS X Software...

System Preferences...

Dock                        ▶
Location                    ▶

Recent Items                ▶

Force Quit...

Sleep
Restart
Shut Down

Log Out...            ⇧⌘Q

Figure 4.

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*Figure 5.*

*To boot into OS X from OS 9:*
1. See Figure 1
2. Go to the "Apple" menu.
3. Pull down to "Control Panels," then out to "Startup Disk."
*That will bring up Figure 2:*
1. Click on the name of your hard drive to select it.
2. If the disclosure triangle beside its name does not open, click it.
3. In the sub menu select the folder that lists Mac OS X in the "Version" column. It is selected when it darkens. The "Build" on your computer may be different than what is shown in Figure 2.
4. Click the "Restart" button
*To boot into OS 9 from OS X.*
1. Go to System Preferences. The icon can be found in the dock (Figure 3) or go to the "Apple" menu (Figure 4) and pull down to "System Preferences. . . "
2. In the "System Preferences" window (Figure 5) locate the "Startup Disk" icon. It is in the bottom row, the second to the last icon.
3. Click the "Startup Disk" icon. It will bring up the "Startup Disk" window (Figure 6). Click on the folder with the "9" on it, then click the "Restart" button. 4. You will then see confirmation window on top of the "Startup Disk" window (Figure 7). Click the "Save and Restart" button. ■

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Figure 6.



Figure 7.

# Random URLs

by David L. Harris

ON THE Pi's TCS bulletin board system I randomly post URLs (addresses of Web sites) that intrigue me. If you have an Internet connection and a Web browser, you can go to any of these places yourself. If you have paid your $20 additional for a TCS membership you can see the newest Random URLs on the "Explorer Service & Internet" board of the General Conference. The URL of the TCS is <http://webtcs.wap.org/>. If you already use the TCS you can probably skip this article.

Here are some of the URLs I've posted recently. They are all working at the time this article was written, but by the time you read it, who knows? Due to the limitations of printing them, some may wrap to a second line. Make sure you get the entire URL—they are surrounded by < and >. Some pages may require JavaScript be turned on in your Web browser; if it is, you may get extra cookies or advertising on those pages. Some of the descriptions are taken from the sources where I get the URLs. And I usually end my lists with humor (of sorts).

Have a gander:

**Exhibition of High Speed Photography**
<http://www.pacsci.org/public/education/gallery/high_speed_photos/student_photos.html>
"High-speed projectiles, breaking glass, and hot plates were used in some of the projects."

**Anatomy of a Telephone Call**
<http://www.electronics2000.com/hacker/anatcall.html>
It may seem simple to you, but understanding the mechanics of a telephone call can be quite enlightening.

**Classical music reference site (may want lots of cookies)**
<http://www.andante.com/>

**Gramofile**
<http://www.gramophone.co.uk/reviews/default.asp>
Gramofile is a rich database of over 250,000 classical music reviews from the magazine *Gramophone*.

**American Indians:**
**Bureau of Indian Affairs**
<http://www.doi.gov/bureau-indian-affairs.html>

**Native American sites**
<http://www.multcolib.org/homework/natamhc.html>

**Aztecs, Incas, etc.**
<http://www.multcolib.org/homework/anchsthc.html>

**Air Force One**
<http://www.nationalgeographic.com/tv/specials/airforceone/>
Take a look inside the world's most famous plane.

**On Land, At Sea, In the Air**
<http://www.gnss.f2s.com/>
Resource site for the Global Position System and the Global Navigation Satellite System: news, forums, photos and more.

**Wind and Sea: the Oceanic and Atmospheric Sciences Internet Locator**
<http://www.lib.noaa.gov/docs/windandsea.html>

**Dr. Mom's Guide to College**
<http://www.lions.odu.edu/~kkilburn/dr_mom_home.htm>
A distillation of the most important advice from one person's perspective as a faculty member, advisor, and parent.

**Human Bone in Tibetan rituals**
<http://www.geocities.com/tibetkapala>

**Dead People Server**
<http://www.dpsinfo.com/dps.html>
Remember whatshername? She was famous! What ever happened to her? Is she dead yet? Find out here. Palm Pilot version available!

**The Sea Slug Forum**
<http://www.seaslugforum.net/>
"This is a site where you can ask questions and post

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information on nudibranchs and related sea slugs such as bubble-shells, sea hares and side-gilled slugs."

**Huggies**
<http://www.huggies.com/>
The Huggies Diapers & Baby Wipes site, where you can get information on everything baby.

**Epinions: reviews of things, by actual users**
<http://www.epinions.com/>

**Angrybox**
<http://www.angrybox.com/>
Angrybox is a place you can vent and complain about services and companies or whatever you have a beef about.

**Spam Combat**
<http://combat.uxn.com/>

**Forestry Images**
<http://www.forestryimages.org/>
Looking for a nice close-up of a bark beetle to show your forestry class? Need a shot of bamboo or acacia for your educational Webpage? Look no further...

**The Museum of E-Failure**
<http://www.disobey.com/ghostsites/>
The Museum of E-Failure bears witness to the dot.bomb phenomenon, presenting the last images of the front pages of failed Websites. Catch them before they disappear. ∎



*December Garage Sale—"Get your hotdogs and  raffle tickets."*

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# How to Use Your Digital Camera

© 2001 Lawrence I. Charters

KODAK, THE company that took cameras out of the hands of professionals and put them into the hands of everyday consumers, is in financial trouble. Why? Because people — everyday people — are turning to digital cameras, leaving film-based cameras gathering dust in the closet. As the largest producer of film-based cameras, and photographic film, Kodak finds itself losing great gobs of money.

But a digital camera won't save you any money if you don't know how to use it. So here are some pointers on how to use your camera, and take advantage of your Mac, too.

### You need a computer

While some cameras will allow you to view your pictures on a TV, in practice a digital camera is pretty useless without a computer. The best computer to have, of course, is a Macintosh with a USB port, which pretty much covers everything Apple has introduced since the iMac. It also helps if the camera you purchased comes with Macintosh-compatible software. Mac OS X 10.1, by the way, comes with software capable of downloading pictures directly from some cameras; you may not need to load a thing.

### Learn the basics

Yes, you need to read the manual. Some of the cameras don't even come with a printed manual; you'll have to read an Acrobat file from the CD-ROM that came with the camera. Concentrate on finding all the controls and learning how to use them. Make sure you know how to load batteries, plug it into your computer, and turn it on and off. Take particular note of buttons you don't *want* to push. (I recently watched someone wonder aloud what one button did, so they pushed it — and watched their rechargeable battery fall into the Pacific Ocean.)

Generally speaking, the better the camera, the harder it is to operate the camera. Inexpensive digital cameras rarely support more than "point and shoot:" you point it, you push the button, it takes a picture. The camera will try to auto-focus the image and adjust the exposure according to available light. More expensive digital cameras allow you to manually adjust focus, focal length, lighting, and countless other settings to help you turn a good picture into a really bad picture — if you don't read the manual.

### Take the camera with you

It may seem obvious but apparently it isn't: you can't take a picture if you don't have a camera. So if you buy a digital camera — take it with you. Take it to work. Take it on trips. Take it when you go for a walk. Take it to relatives and friends.

Don't reserve your digital camera for "special occasions." I've used my digital camera to photograph car wreaks (the guilty parties were unhappy, the innocent were overjoyed, the insurance companies were bemused), interesting clouds, odd flowers, patterns in fallen leaves, funny signs and bumper stickers, and countless other things I wouldn't have "wasted" on film. Aside from batteries and electricity, digital cameras cost almost nothing after purchase.

So take pictures. Lots of pictures.

### You need a big closet

Once you start using your digital camera, you'll realize that digital pictures take up lots of room on your computer. If you take thousands of pictures, you'll either need to start buying gigantic hard drives (fortunately they are cheap) or you'll look into removable storage.

Jaz and Zip cartridges are too expensive, and also proprietary: in five years, will you be able to read the cartridges? Will anyone else? DVD-ROM holds the promise of vast capacity, but there is no standard format for DVD-ROM so, once again, who will be able to read it?

CD-ROMs are the best way to go. Blank CD-ROMs are so inexpensive as to be almost free, and can be read by virtually every computer made. Many current model Macs come with CD-RW drives for "burning" CD-ROMs, and external FireWire drives are available if you don't have a machine with an internal CD-RW drive. If you have neither a CD-RW drive nor a FireWire port on your Mac, consider buying a new Mac. Not

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only can you get it with a CD-RW drive, but it will come with a faster hard drive, faster processor, and probably more memory than whatever you are currently using, and probably cost far less.

CD-ROMs are also handy for sharing photos: create a custom CD-ROM for your mother showing where you went on your vacation, or for your niece with pictures of her wedding. As long as they have a computer of their own, they can take your pictures and print them out, make them into posters, create Web sites, and do many other things that they couldn't do if you just sent snapshots.

### High-resolution is the only resolution

Most digital cameras offer multiple resolutions. You can shoot the most pictures at the lowest resolution, and the fewest pictures at the highest resolution. Ignore this — shoot everything at the highest resolution.

You'll probably need to buy a larger memory card; most digital cameras come with a memory card just large enough to make the camera work. So if the camera came with an 8 MB card, and each high-resolution picture consumes 1 megabyte of space, you'll only get 7 or 8 pictures before "filling" the camera. If you go out and buy a 128 MB card, on the other hand, you'll be able to shoot at least 120 pictures before running out of storage.

Why shoot at the highest resolution? Because it offers the most flexibility. If you are shooting pictures for the Web, you don't need high-resolution photos, but you do want good photos. With a high-resolution photo, you can crop out just a small section of an im-

age and still have something that looks good on the Web. Even if the high-resolution image was shot for the Web, the fact that it *is* high-resolution means it can be easily re-used for a print, poster, magazine, brochure or some other use. Low-resolution images, in contrast, are good for little more than viewing on your computer screen.

### Work on composition

Professional photographers can take professional pictures with cheap cameras, and amateurs can take amateur snapshots with professional cameras. The difference is usually in composition.

Have you heard the old joke about how to carve an elephant? You first get a big block of stone, and then you carve away everything that doesn't look like an elephant. Similarly, good composition is the foundation of a good photograph: there should be nothing in the frame of the picture that you didn't plan.

Digital cameras, because of their "free" film, offer the perfect excuse for experimenting with composition. Instead of taking one picture of your dog, take twenty or fifty. Pay particular attention to the background: do you really want that tree to look like it is growing out of Uncle Walt's ear? Should Herb's new red car really be in front of the partially spilled trashcan? Does the White House look more "Presidential" with no people around it, or with a security guard in the foreground, checking ID cards? Try both, and see.

Many digital cameras have zoom lenses, and most people think a zoom lens is for "zooming in" and making things look "bigger." Not at all — a zoom lens is for cropping a photo. Use the zoom controls to capture a wider view of a subject, or to crop out things you don't want. If you want something larger or smaller, forget the zoom controls; move closer or farther away.

Don't use "digital zoom!" Ever. The digital zoom controls blow an image up, but at the cost of resolution. If you want an image blown up, you can do that in Photoshop, or possibly with the editing software that came with your camera. "Digital zoom" makes almost any picture worse.

### Experiment with exposure

Digital cameras usually work best in sunlight, just like film cameras. When you move indoors, or into dim light, things get much trickier — just like film cameras. So experiment.

If you can shoot your subject from different angles, with different lighting, do so. If your camera allows you to turn off the flash, try it. If your camera allows "fill flash," try that, too. Sometimes a perfectly exposed picture is made even better with fill flash. Sometimes turning off the flash and leaving the subject somewhat underexposed adds drama. Every once in a while,

you'll take the same picture three different ways, with three different exposure options, and get three radically different pictures — and all of them will look good. But you've got to experiment.

If at all possible, bracket your shots, with one shot slightly underexposed, one slightly overexposed, and one "just right." Some digital cameras will do this au-
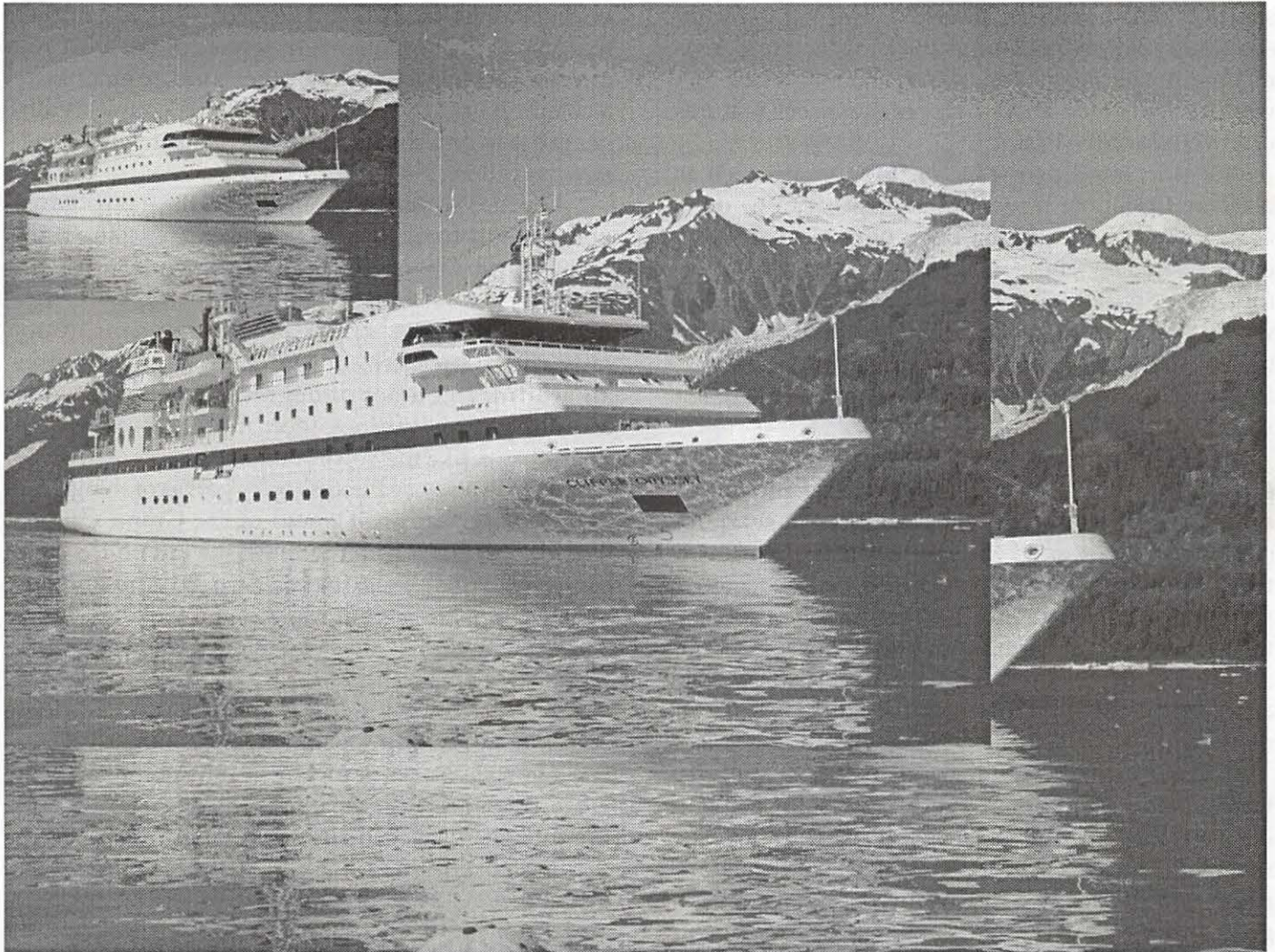


*Why is resolution so important? This image, of the M/V Clipper Odyssey in Harriman Fjord, Alaska, was shot with a Nikon CoolPix 990 digital camera at its highest resolution. This gives a 2048 x 1536 pixel image, which at 72 dpi is 28.5 by 21.3 inches. In short, it is huge. But if you increase the pixel density to 288 dpi, for printing on an inkjet or laser printer, the image shrinks to 512 by 384 pixels, or 7 x 5 inches. Overlayed on top of the image is a 1600 by 1200 pixel image, the size you would get at maximum resolution with a Canon PowerShot S300 Digital Elph. In the upper left corner is a 640 x 480 pixel image, the size you would get with Apple's QuickTake II camera or with the camera provided by Earthlink during some of its promotions. At 288 dpi, the 640 x 480 pixel image is just 2.2 by 1.67 inches, adequate for little more than a thumbnail image. Having a higher resolution also helps in editing: along the bottom edge of the photo, you can just barely see the top of someone's baseball cap. With a high-resolution image, you can crop out the bottom edge and still have a nice picture. (Note: photos reduced in size for reproduction in the Journal, but the relative sizes remain the same. Photo by Lawrence I. Charters)*

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tomatically, but even then you need to practice. If you are expecting the camera to shoot one frame and it shoots three, there is an excellent chance the last two will look like they were taken by a very surprised photographer.

### Special features

Many digital cameras have some interesting in-camera special features. Some will allow you to take short QuickTime clips, some will allow you to record sound annotations, and some will allow you to experiment with special effects, such as shooting black and white or sepia-tone images. Ignore the special features until you learn the basics.

Keep in mind that some of these tricks, such as black and white or sepia-toned images, can be done *without* the camera. Just load up a normal color image in Photoshop and, in a few minutes, you can have perfect black and white or sepia-toned photos. In other words, if you can do it easily in Photoshop, you might be better off concentrating on taking a good color photo, and worrying about special effects later on at your leisure.

On the other hand, you *should* try out other special effects. For example, if you pan your camera to track a car moving at high speed, the car will be in sharp focus but the background will be blurred, making an interesting picture. Or you can do the opposite: focus on a particular stationary object — a child flying a kite, a freshly-painted fire hydrant — and allow a speeding car to enter the frame. You'll then have a sharply focused center of attention with the added benefit of motion.

Silhouettes are another nice special effect. Try taking a photo with your subject in shadow, eclipsing a brightly-exposed object in the background. The reverse — a brightly exposed subject against a dark background — can be just as interesting. Getting a good silhouette with film is expensive: you shoot a lot of frames with little or no reward. With a digital camera, however, the only cost is your time and patience, and your patience *will* be rewarded.

### Retouching

If you shoot a dozen rolls of film and take it to One Hour Photo, you're pretty much stuck with the result. If the image is under or over exposed, too bad. If you shot something indoors and the tungsten lighting made everyone and everything too yellow, too bad. But with

a digital camera and Photoshop (or the photo editing software that came with your camera), you can make adjustments.

The most common adjustment is correcting exposure. The image captured by the camera is just a wee bit too dark or too light, but both problems are easily corrected in Photoshop with the Levels tool (under Image>Adjust).

Photoshop's Variations tool (also under Image>Adjust) makes short work of correcting images that are too yellow, too red, too green, or too blue. You can use the same tool, on the other hand, to emphasize a color. A perfectly exposed photo of a couple at dinner can take on a romantic, dreamy look if you emphasize the yellow.

Another common problem: earthquakes. Most people tend to tilt the camera slightly to the right or left, and when you look at their pictures, everything looks as if it is about to fall over in a major earthquake. Photoshop allows you to not only rotate pictures, but you can rotate pictures an arbitrary number of degrees. The Washington Monument really does look more impressive if it doesn't look like the Tower of Pisa.

You can also use Photoshop to get rid of things you don't want. That great photo of the Grand Canyon would look much better without the kid on the right edge of the photo, picking his nose. So crop him out. That great photo of your brother you took last week? Share it with him — after you remove last week's girl-friend.

### Practice, practice, practice

If you shoot lots of pictures, some of them will be great. This is also the principle behind the machine gun: fire enough bullets and you're bound to hit something.

I've looked at the photos — all the photos — taken by professional photographers on a shoot. Most of them range from bad to OK. But professional photographers understand the theory behind machine guns, and quite literally shoot more photos than "normal" people. They try more angles, more types of lighting, and they move around more. Most of their photos, as noted, are unexceptional. But every now and then they hit something, and get a great photo.

Shoot lots of photos. The bullets are free with a digital camera. ■

# Building a Web Site at Sea

## Mobile Problem

D URING THE spring of 1999, I was asked what it would take to set up a "Web studio" aboard a ship. The idea was simple: a government science agency frequently sends people out to sea to explore various aspects of the coastal and ocean environment, and they wanted to document these voyages contemporaneously using Web technology. People would write up daily logs and essays and take pictures, and these raw materials would be reformatted as Web pages aboard ship, and then be transmitted – somehow – back to shore. This article outlines the evolution of that idea from a non-specific speculation to a finished, major Web site.

When first approached with the idea, I was intrigued with the challenge, and decided to start with a list of problems:

■ Ships may be large, say, compared to houses, but they are always cramped. Every cubic foot of space has at least one purpose, so the equipment would have to be small and portable.

■ Ships move. This may seem obvious, but they move in many ways. Not only do they travel from port to port, but they also rock, roll, sway, vibrate, and generally do many other things that designers of computer equipment don't usually take into consideration.

■ Electrical power is suspect. I have never been on a ship that didn't have periodic electrical outages, surges and dips. Also, ship electrical power is often not the U.S. residential standard 120 volt, 60 Hz.; 220 volt, 50 Hz is just as popular, if not more popular.

■ Transmitting information to shore is a problem. Radio satellite communication is extremely expensive for even a slow link. Cell phones work moderately well if you are in a pleasure craft off a major U.S. city, but most of the ocean fails to meet this criteria. Periodic port calls might allow you to drop off a CD-ROM to be sent by FedEx, but FedEx service isn't exactly ubiquitous over much of the planet, their commercials to the contrary.

After several weeks of talking to marine radio operators and ship officers, it was clear that transmitting finished Web pages was going to be a major problem. Sending digital data from sea is still considered somewhat exotic, outside of the U.S. Navy. Most ships use INMARSAT radio satellite telephones, and the telephones, as the name suggests, were designed for voice communications. For ships that purchase the necessary
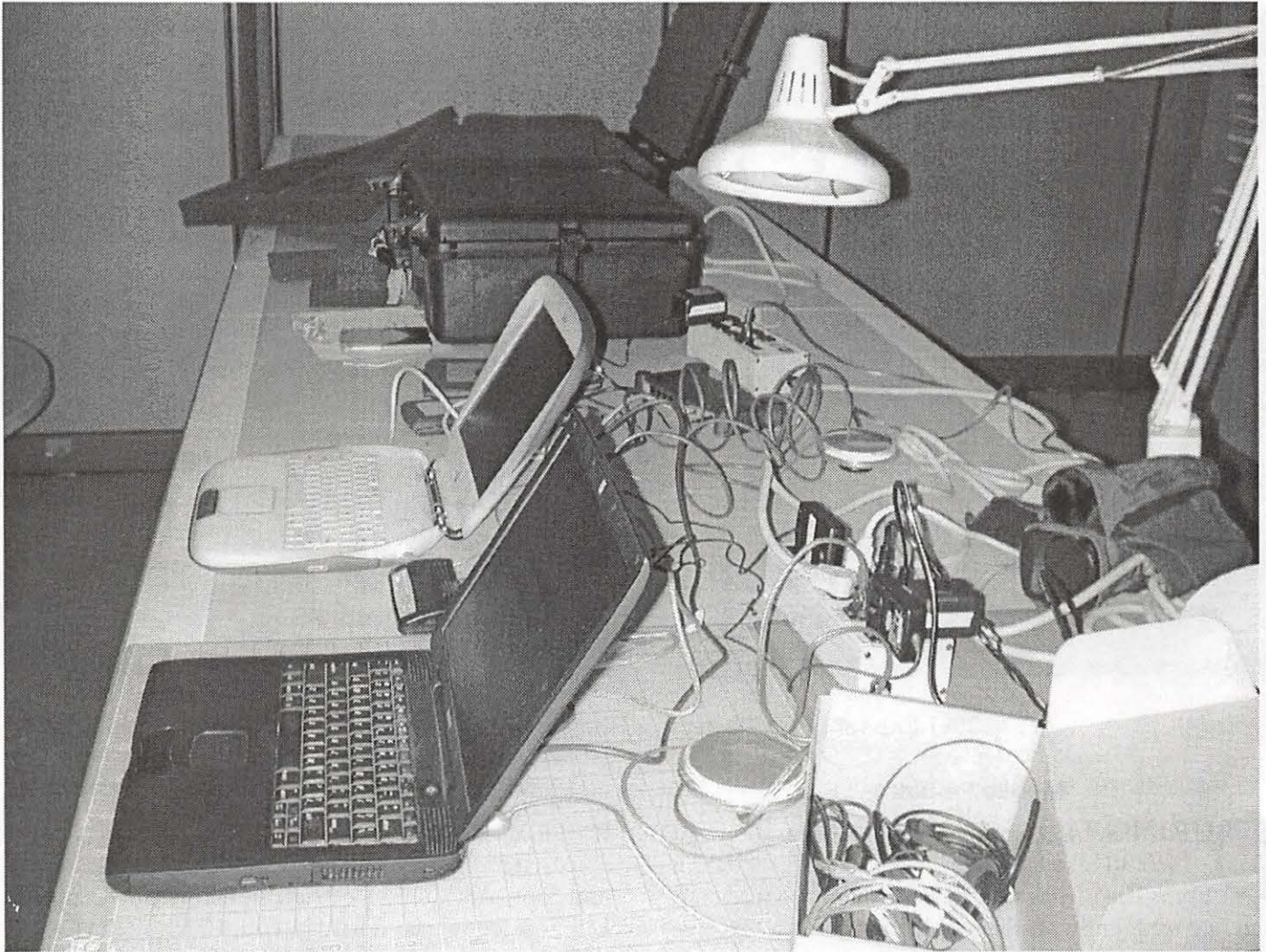
*Before the expedition began, much of the equipment was "beta-tested," in part to see if everything worked and in part to give the Webmasters experience with the hardware and software. In the foreground is one of the PowerBook G3 laptops intended as a Web editing workstation, with the blueberry iBook behind it that served (very well) as the Web server. At the end of the table are two of the Pelican cases, one closed and one open with the foam partially spilling out of it. This photo was taken to test transferring images from the Nikon 990 camera to the PowerBook. (Photo by Lawrence I. Charters)*

cabling and adapters, you can convert digital data into something the INMARSAT equipment can accept, but the effective speed is only around 9,600 bits per second or less, at $10 per minute. Faster speeds are possible, but this requires much more expensive equipment, and the per-minute charges are also higher.

### Recommendations: First Cut

I decided to ignore the transmission aspects, and came up with a list of recommended hardware and software for a remote Web studio:

■ Apple Power Macintosh G3 laptop with 192 MB of RAM;

■ Nikon CoolPix 950 still digital camera;

■ 64 MB compact flash card for digital camera;

■ 4-port Ethernet hub, with four two-meter Cat-5 Ethernet cables;

■ Claris Home Page 3.0;

■ Microsoft Office 98;

■ Netscape Navigator 4.0; Microsoft Internet Explorer;

■ Adobe Photoshop 5.0;

■ QuickTime Pro 4.0

1899 Harriman Alaska Expedition. Though not too well known today, the Harriman Alaska Expedition was the last great scientific voyage of the 19th century, and it holds a huge place in the history of Alaska. The participants on the expedition included America's best and brightest scientists, artists and naturalists at the turn of the century, and they spent more than a decade writing thirteen volumes detailing the expedition's findings. Virtually every field of natural science in Alaska today uses the Harriman Alaska Expedition as a reference point in studies ranging from sea mammal habitats to the formation and movement of glaciers.

Aside from its contributions to science, the Harriman Alaska Expedition is also interesting from a purely historical perspective. While most of the great "voyages of discovery," such as Captain Cook's expeditions or Lewis and Clarke's expedition, were funded by nations, the Harriman Alaska Expedition was funded by one man, the wealthy railroad baron Edward H. Harriman. When Harriman's name is mentioned today, it is mostly in connection with laws concerning monopolies, as he steadily built a vast railroad empire that dominated the U.S. at the end of the 19th century. (The film *Butch Cassidy and the Sundance Kid* mentions Harriman several times in passing, as Cassidy's "Hole in the Wall Gang" had a habit of trying to rob his trains.) Harriman's funding of such an extensive expedition was a worldwide sensation, equivalent to a modern computer software magnate's funding of a voyage to Mars.

Retracing the Harriman Alaska Expedition offered a splendid opportunity to review the work of John Muir, William Dall, Bernhard Fernow, and the other legendary members of the expedition, only equipped with 21st century scientific tools and methods. Under the guidance of Tom Litwin, Director of the Clark Science Center at Smith College, the project gathered support from a number of organizations and foundations, including PBS (the Public Broadcasting Service), National Ocean Service (part of the National Oceanic and Atmospheric Administration), and the Alaska Geographic Alliance.

When first asked to come up with recommendations for a remote Web studio, I didn't have many specifics at hand. Now I had a specific destination: Alaska, and a specific time: July and August 2000. I also had a specific ship: the expedition planned to use the M/V *World Discoverer*. In conversations with the ship owners, I was also able to come up with specifics on electri-



*It never occurred to either of the Webmasters to take a photo of the Web lab in action, but fortunately others did. Kesler Woodward, nature artist, (foreground) and Paul Alaback, forest ecologist (rear) are busy using the two PowerBook G3s to write material for lectures and the Web; local time is roughly midnight. Between them the iBook Web server has been shut down and closed up for the night. At the bottom of the photo is the Canon scanner, with one of the AA battery chargers in front of it. (Photo by Megan Litwin, taken with a Nikon 990 digital camera)*

This would provide a nice, robust laptop with the software tools necessary to edit digital images, write text, and create Web pages. The Ethernet hub was included in case other computers were available, permitting high-speed data exchange via Ethernet. Transmission issues were ignored, for the moment.

### North, To Alaska

Then, in September 1999, I was asked to look at the recommendations and apply them to a specific mission: a sea voyage to Alaska. Clark Science Center of Smith College, the largest women's college in the United States, was planning to retrace the route of the

*A view of the Web lab looking toward the stern. From near to far you can see a coffee cup perched on the edge of doom, an orange iBook belonging to one of the scholars, one of the PowerBook G3 Web-editing stations, the iBook Web server, the other PowerBook G3, and the Canon scanner. In case you were wondering, despite the ship's vibration, the cup never did fall to the deck. (Photo by William Cronon, taken with a Nikon 990 digital camera)*

cal power (220 volt, 50 Hz), radio equipment (an older INMARSAT radio telephone, capable of no more than 9,600 bps transmissions), and space: the *World Discoverer* was notoriously cramped.

I also gained a partner in developing the Web studio. Equipment for the expedition would be purchased by Clark Science Center at Smith College, and at the end of the voyage the equipment would return to Smith. So I sent my wish list to Eric Brewer, Computing and Technical Services Manager for Clark Science Center, and Eric set out to collect the equipment.

Heading to Alaska did, however, add to the transmission problems. INMARSAT radiotelephones use a chain of geostationary satellites to transmit and receive data. The farther north (or south) you travel, away from the equator, the harder it is to get a clear signal to the satellites, and during the second half of the Harriman Retraced expedition, the ship would pass north of the Arctic Circle, about the worst possible location for good satellite traffic. In addition, the years 2000-2001 would be peak years for the 11-year cycle of sunspot activity, making this the worst possible time from the worst location to try and send digital information via satellite. My backup plan, sending data via FedEx, was also in doubt: most of the Alaska coastline is far too remote to merit FedEx service.

## Recommendations: Second Cut

In exchanging E-mail messages with Eric Brewer, it soon became obvious that we shared a common characteristic: we are skeptics. Given that the ship would be at sea much of the time, far from the nearest Radio Shack or CompUSA or Micro Center, it seemed obvious that equipment would get broken, parts would get lost, batteries would die, and things would go wrong. So I sent him an updated list of requirements for a remote Web studio, substituting a newer model digital camera, adding a digital video camera, specifying that the PowerBooks should have FireWire (for the video camera) and requesting duplicates of a few particularly vulnerable pieces of equipment. External hard drives were also requested to make sure it was easy to back everything up:

- 2 - Apple Power Macintosh G3 laptop with 192 MB of RAM, FireWire;
- 2 - Nikon CoolPix 990 still digital camera;
- 2 - 64 MB compact flash card for digital camera;
- Canon GL-1 digital video camera
- 4-port Ethernet hub, with four two-meter Cat-5 Ethernet cables;
- 2 - external LaCie SCSI 18 GB hard drives
- 2 - external SCSI Iomega Jaz drives
- Claris Home Page 3.0;
- Microsoft Office 98;
- Netscape Navigator 4.0; Microsoft Internet Explorer;
- Adobe Photoshop 5.0;
- QuickTime Pro 4.0
- iMovie or Final Cut Pro

Over the next few months, Eric and I discussed the merits of FireWire peripherals (which were just becoming available) compared to SCSI, and the possible need for a USB-based floppy drive, speculating that some of the scientists might not have any other way to transfer materials. We also debated the merits of Iomega Jaz and Zip cartridges; though these are extremely popular, we wondered whether a recordable CD-ROM drive might be a more durable, and even less expensive archive alternative. I also suggested that, while PowerBooks are more portable and compact, iMacs could do the job just as well and cost less, though they are bulkier.

Power and space issues were an ongoing concern. The German-built *World Discoverer* used European-style
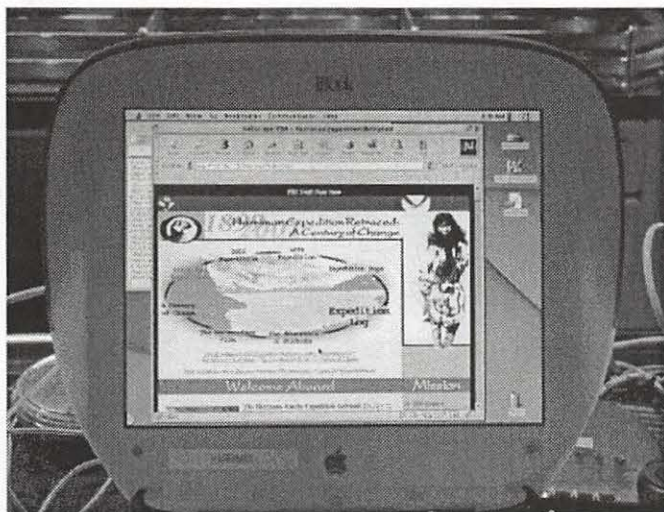
*This remarkable photo shows the Web server in operation aboard the ship. Taken with a hand-held Nikon 990 digital camera, the screen from the iBook is the main source of illumination for the photo. (Photo by William Cronon)*

round power plugs, and 220 volt, 50 Hz current. Macs have always had "universal" power supplies, so this would not be a problem for them (aside from plug adapters), but some of the other equipment might instantly fry on 220 volts.

Then there was the question of how to package all this stuff for transport to the ship and back. I suggested Eric look at Pelican cases. These heavy-duty plastic cases, with custom foam linings, are legendary for their ability to protect equipment during shipping. They aren't cheap, and they aren't particularly compact, but they are rugged.

## Sinking Prospects

With plans well underway, we received word in May 2000 that the expedition ship, *World Discoverer*, had sunk. In the middle of a trip to the Solomon Islands, near the World War II battlefields around Guadalcanal, the ship hit an uncharted reef, ripping a large hole in the hull. The captain ran the ship aground, and it sank in shallow water. The nearest salvage companies were in Australia, and by the time they reached the ship, it had been ransacked, and tidal action had caused further damage. Complicating matters was the civil war raging in the Solomons; one of the warring factions had allegedly boarded the ship at one point, looking for supplies and equipment. The owners eventually declared the ship a total loss.

In all the planning for the expedition, a great deal

of thought had been given to backup plans and backup equipment, but not to backup ships. With the expedition set to sail in July 2000, things were looking bleak; a few weeks later, the expedition was formally postponed until 2001 – assuming a replacement ship could be found.

In the meantime, Eric and I reconsidered our list of equipment. While iMacs might be less expensive, we eventually rejected them for the expedition on the grounds that they were too bulky and too hard to transport, at least compared to PowerBooks. I had a brainstorm that it might be a nice idea to have at least one iMac aboard the ship with a live copy of the Web site, allowing expedition members to follow the journey "on the Web" while at sea. Everyone thought this was a splendid idea – except that, again, an iMac might be a bit too bulky. I also floated the idea of having a flatbed scanner aboard the ship, mentioning the very inexpensive, very thin Canon scanners; everyone thought this was worthwhile.

During the winter, we received formal notice that a new ship, the M/V *Clipper Odyssey*, would be used for the rescheduled Harriman Retraced expedition in July-August 2001. Built in Japan in 1989, the *Clipper Odyssey* was larger, newer, and allegedly more spacious than the *World Discoverer*. The radiotelephone equipment wasn't any faster, but the electrical system on the ship was 120 volt, 60 Hz. Best of all, the *Clipper Odyssey* was afloat.

## Recommendations: Final Cut

Since the original "Web studio" recommendations, time had brought many changes to the computer field, both in hardware and software. By spring, 2001, most of the software on my original list had gone through at least one revision, and new hardware – especially FireWire storage devices – had emerged from the land of the theoretical into reality. Eric and I discussed these issues and came to some conclusions:

■ While there were now "better" Mac laptops available than the PowerBook G3 (now out of production), Eric had already purchased two PowerBook G3s, so we would stick with them.
■ Instead of an iMac Web server, we would use a blueberry iBook (second generation with FireWire) as the Web server. For all practical purposes, an iBook is just a compact, portable iMac, anyway.
■ We would use FireWire hard drives and CD-ROM
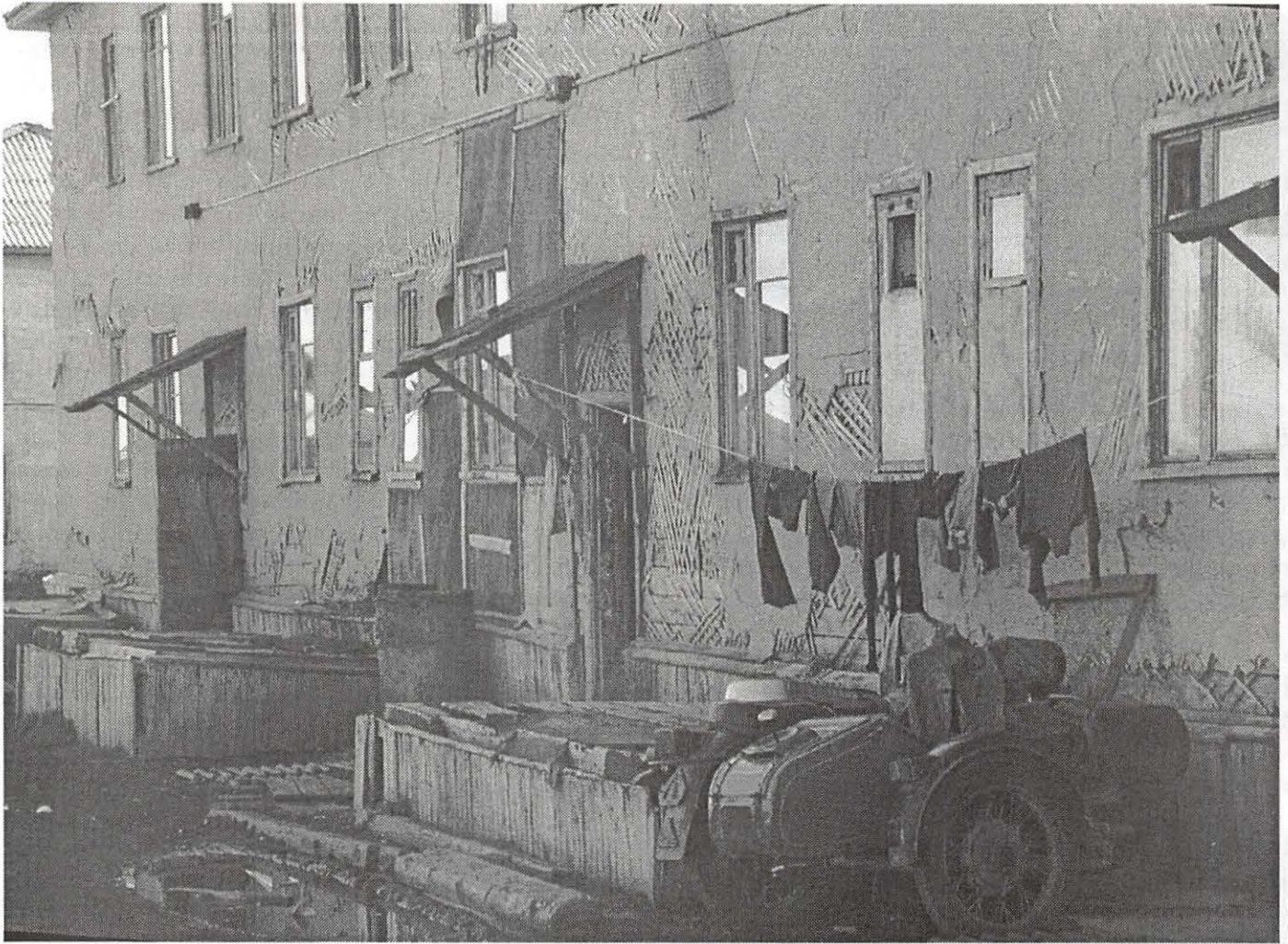
*The Web lab fascinated the Russians, and it wasn't hard to see why. During the second half of the trip, the ship stopped at a few villages in Siberian Russia, and nobody was prepared for the stark poverty. This photo shows some of the best housing in one village, built cheaply by the Soviets in the 1960s and never maintained. The outer surface of the building has peeled away, revealing the poor lattice framework holding up the walls. The motorcycle and sidecar, while inappropriate for Siberian weather, was one of the few non-military vehicles in the village. (Photo by Alison Hammer, taken with a Nikon 990 digital camera)*

burners instead of the SCSI-based drives and CD-ROM burners we'd talked about in the beginning. Eric had great fun testing these; we exchanged messages on how to simulate an Alaska ship voyage, and decided that setting up everything on the hood of a car, with the motor running, would be a nice test. Instead, Eric set up everything on his old, vibration-prone washing machine, burning CDs during the low-frequency wash cycles as well as the high-frequency spin cycles. He then capped his testing by moving everything on top of the dryer and burning some more as it spun merrily away.

■ All the expensive, delicate equipment would be packed in three large Pelican cases, each one about the size of an oversized suitcase. Eric had never worked with Pelican cases before, but was highly impressed with their extremely rugged construction and the detachable, heavy-duty combination locks. He speculated that if the new ship sank, the Pelican cases would definitely survive with all equipment in perfect condition. I wasn't sure if this was supposed to be comforting.

The equipment we finally took to sea reflected our changing view of both the problems posed by the journey and the opportunities presented by new technology. Packed in three Pelican cases were:

- 2 – Apple Macintosh PowerBook G3, 192 MB RAM, with FireWire
- 2 – Nikon CoolPix 990 digital camera (with rechargeable batteries)
- 2 – 96 MB Compact Flash card (for Nikon)
- 2 – LaCie Pocket FireWire/USB hard drive (20 GB)
- 2 – LaCie Pocket FireWire/USB CD-RW drive
- 2 – VST USB floppy drive
- 2 – Asante FriendlyNet USB Hub
- 2 – Asante 8-port 10/100 Ethernet hub
- 2 – Sony TCS-580V stereo cassette recorder (with rechargeable batteries)
- 2 – Sony stereo headphones (for cassette recorder)
- 1 – Apple Macintosh blueberry iBook, 192 MB RAM, with FireWire
- 1 – Canon GL-1 digital video camera (with windscreen, battery and PortaBrace rain slicker)

Packed in various cardboard boxes were:
- 2 – Canon CanoScan 650U USB flatbed scanners (packed in their original shipping cartons)
- Power cords and power supplies for the various computers, hubs, and drives
- Power cord/battery charger for the Canon digital video camera
- A bunch of Ethernet patch cords
- A "Sharpie" labeling pen (for marking CD-ROMs)
- Various FireWire and USB cables, and A/V patch cables for the video camera
- Spare non-rechargeable AA batteries (for cameras and cassette recorder)
- Manuals for everything
- CD wallet with backup copies of the software, including software restore discs for the laptops
- Carrying cases for the Nikon digital cameras, the Sony cassette recorders, and the digital video camera
- Spare lens filters and camera cleaning supplies
- 2 – APC surge-protected power strips
- 80 – CD-RW blank discs
- 30 – CD-R blank discs
- 14 – 60-minute cassette tapes
- 10 – 60-minute digital video tapes
- 20 – floppy disks

The software suite had also grown much more detailed. Because we were going to operate a full Web server aboard ship, and not just create pages, we needed a full Web server. A local copy of just the files would not do, since the Web site used server side in-

"Retracing the Harriman Alaska Expedition offered a splendid opportunity to review the work of John Muir, William Dall, Bernhard Fernow, and the other legendary members of the expedition, only equipped with 21$^{st}$ century scientific tools and methods."

cludes (SSI) to build pages from multiple files on the fly. I selected WebSTAR 4.4, which is easy to manage and, we discovered, runs blisteringly fast on an iBook. We also added updated applications for Web site creation and management, image and video editing, and sound editing:
- Adaptec Toast 4.1.6 (CD-ROM authoring)
- Adobe GoLive 5.0 (Web site management and creation tool)
- Adobe LiveMotion 1.0.1 (video editing)
- Adobe Photoshop 6.0 (image editing)
- Apple iMovie 2.0.1 (video editing)
- Apple Mac OS 9.1
- Apple QuickTime 5 Pro (for extra still and video input/output capabilities)
- Dartmouth College Fetch 3.0.3 (file transfer client)
- Microsoft Internet Explorer 5 (Web browser)
- Microsoft Office 2001 (general office applications)
- Netscape Communicator 4.77 (Web browser)
- Network Associates' Virex 6.0 (anti-virus software)
- SndSampler 4.4.2 (sound editing shareware by Alan Glenn)
- Bare Bones Software BBEdit (text editor)
- Claris Home Page 3.0 (Web authoring tool)
- 4D WebSTAR 4.4 (Web server, FTP server)
- Aladdin Systems Stuffit Deluxe 6.0 (file compression and archiving)

### Practice Makes Perfect

While waiting for the expedition to launch, the expedition Web site was under active construction for a year and a half. Since the 2001 expedition was following the route of the 1899 expedition, a prototype Web

*This is the ship's library before the voyage set sail. The small, low tables and low padded chairs proved to be poorly designed for computer use. The bar is out of the picture to the left, and the hatch at the stern leads to the boat deck. (Photo by Lawrence I. Charters, taken with a Canon S300 Digital Elph camera)*

site was set up and packed with a massive amount of material on Edward H. Harriman, John Muir, William Dall and the other members of the original expedition, complete with photos, journal entries and illustrations. National Ocean Service prepared maps of the current expedition route, including elaborate 3D "fly throughs." Lesson plans were prepared by the Alaska Geographical Alliance for use in schools, and information on the documentary film planned for the expedition was also placed on the site. About the only thing missing was, of course, information on the main event, the forthcoming 2001 expedition.

In June 2001, Smith College shipped two of the three Pelican cases and several cardboard boxes of "stuff" to National Ocean Service. While I had specified virtually all of the equipment, I'd never actually used the FireWire hard drives or CD-ROM drives, and had only limited experience with the Canon video camera. I also needed to transfer the existing prototype site to the iBook (which would serve as the Web server), and teach my colleague, Alison Hammer, how to connect everything together.

The four-week trip would be divided into two parts, and I would serve as on-board Webmaster for the first part and Alison would serve on the second part. Alison had populated much of the Web site, taking raw materials on the original 1899 expedition and turning them into several hundred finished pages, as

well as working on the maps and 3D fly-throughs. Accordingly, she was intimately familiar with the contents of the Web site, but had almost no experience with computer networking, had never tried to run Web server software, and had no experience in using digital cameras. While rushing to finish various projects, she spent hours practicing packing and unpacking the equipment, connecting Ethernet hubs to computers, connecting USB hubs to peripherals, starting the Web server software, and figuring out the differences between FireWire, USB and Ethernet cables. We both spent time practicing taking digital pictures and video clips.

I was also taking with me a recently purchased office laptop, a PowerBook G4, and my own personal Canon PowerShot S300 Digital Elph. This tiny digital camera (it will fit in a shirt pocket) had only been available for a few weeks, but I was impressed with the clarity of the 2.1 megapixel images it produced, and very impressed with its size and stainless steel construction. Equipped with a 160 MB Compact Flash card (the camera ships with an almost useless 8 MB card) and a spare rechargeable battery, the Canon S300 became my constant companion for the rest of the summer. Aboard ship, I never left my cabin without it.

On July 21 I flew to Seattle where the expedition members were gathering, and then flew to Prince Rupert, British Columbia, the next day to catch the ship. The ship's voyage, while extraordinary, won't be detailed here; the best place to read about it is (of course!) on the expedition Web site,

http://www.pbs.org/harriman/

and in particular the Expedition Log section,

http://www.pbs.org/harriman/explog/explog.html

Instead, I'll spend time discussing what worked and what didn't work.

### Failures and Annoyances

The first major hurdle involved finding everything. I took two of the massive Pelican cases full of equipment, plus an extra, ordinary (but large) suitcase packed with the contents of several cardboard boxes, with me on the plane, earning an impressive "excess baggage" charge. Once aboard the ship, it wasn't too hard to track down the third Pelican case (the cases are

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hard to miss), but most of the supplies sent directly to the ship were "missing" for almost the entire first half of the trip.

Aside from missing supplies, there were also two separate and distinct power problems. The first one involved batteries: almost all the equipment had been in storage (the expedition was, after all, a year behind schedule), and the batteries to the cameras and computers had died. While the batteries in many instances were rechargeable, most of the rechargers were missing, as were all the spare rechargeable batteries, and even ordinary AA batteries were nowhere to be found.

The second power problem involved the ship. Though the ship did, indeed, run on U.S. standard 120 volt, 60 Hz current, power plugs were few and far between. The space offered as a "computer lab" was the ship's "library," called this because it had built-in bookcases, but it also doubled as a bar. The room had two power plugs: one in a wall next to the bookcases, and one on a wall inside the bar.

While most of the supplies were missing, I did find the two APC surge protectors, so promptly plugged one of these into one of the power outlets in the "library." It did nothing. The ship's electrician took the plug apart, declared it was working fine, and we tried again. Nothing. We plugged in a lamp, and it worked fine. So we tried the second APC surge protector: it worked. This was good news, sort of: hours into the voyage, half of all the surge suppressors were dead.

The surviving surge suppressor complained of a wiring fault, usually caused by poor or improper grounding. On reflection, we probably should have used regular multiple-outlet power strips rather than surge protectors, since ships have a "floating ground" rather than a true ground. As the ship is at sea, you can't just go pound a metal rod into the earth to ground your electrical systems, and it may be that the dead surge suppressor simply couldn't cope with the floating ground. The surviving surge suppressor managed to last the rest of the voyage, but always indicated a fault.

The tables in the "library" portion of the room were small, round and low, designed to be used as coffee and snack tables, and after a couple days were abandoned as unsuitable for computer equipment. Sitting in the low chairs in front of these low tables, trying to type on a computer was sheer torture.

This left the bar, and the bar had a nice, slick, flat surface, ideal for wiping up spills. But we didn't really like the idea of putting several thousand dollars worth of computer equipment on a high, slick surface – especially on a ship that can't help but shake, rattle and roll. The ship's purser solved this by putting "no-skid" on the bar. "No-skid" is a mariner's best friend: a rubber-like, pliable matting, used on tables and other surfaces to keep things in place. After covering the bar with a sheet of "no-skid" matting, the computer equipment was set up on the bar.

It wasn't the best of setups: the bar stools were designed for drinking, not typing, and most people found it more comfortable to stand at the computers and type than sit down. There were also continuing hassles with electrical equipment: the one surviving surge suppressor did not have enough outlets for all the equipment, forcing a constant shuffle of plugs. Space was also a problem, since the bar wasn't all that long. At one point, using both Ethernet hubs daisy-chained into one another, there were eleven computers on this small network: the two PowerBook G3 computers, the iBook Web server, my office PowerBook G4, five other PowerBooks and iBooks brought by other scholars, and two Windows laptops. One individual commented that it looked more like a rugby scrum with everyone crammed together.

The shortage of batteries and supplies caused constant problems for most of the first two weeks. I'd check out a Nikon CoolPix camera to someone, and they would bring it back with dead batteries – batteries I could not easily charge without finding the missing charger. Similar problems plagued the Canon video camera and the Sony cassette recorder, which in addition to batteries were also missing mini-DV and audio cassettes, respectively. The original plan had called for making an archive of the Web site each day, to guard against disasters, but an acute shortage of CD-ROM blanks slowed this process.

As expected, all the Macs on the ship (the scholars were about evenly split between Macs and Windows laptops) had no trouble plugging into the Ethernet hub and transferring files over Ethernet. But while PowerBooks and iBooks come with Ethernet built-in, such is not the case with Windows laptops. A few Windows laptops managed to plug into the Ethernet hub, at which point I could FTP their files to the WebSTAR server. Most of the Windows users provided files via floppy disk, and the USB floppy drives were very busy. One individual gave me 44 floppies one night, just before midnight. I had nightmares about floppy shuffling.

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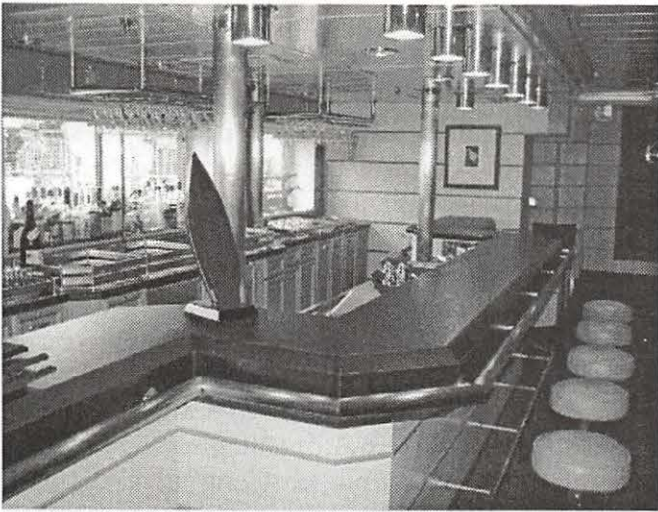


*This is the bar in the ship's library, before the voyage set sail. The bar was initially rejected for computer use because of the slick surface. Once covered with "no skid," the bar proved safe enough, and long enough, to accommodate the Web server and Web-editing workstations, hubs, drives, cables, scanner and other equipment. (Photo by Lawrence I. Charters, taken with a Canon S300 Digital Elph camera)*

Some Windows laptops, however, had neither floppy drives nor Ethernet. In one case, the laptop did have a writeable CD-ROM, so we transferred files by creating a CD-ROM on the Windows machine and then reading it on the Macs. There were also numerous complaints that I didn't provide a printer. To be honest, it never occurred to me to provide a printer; I was preparing electronic material for the Web; why did I need a printer?

I also spent far too much time fixing people's computer problems. It seemed that almost half the Windows machines were infected with at least one type of virus, and either had disabled or out of date virus checkers, or no virus checker at all. Several users had machines with dead batteries; the machines had apparently been issued from storage, and nobody checked to see if they worked before heading to the ship. Many users appeared to have only a vague idea how their machines worked, and were constantly asking me to find things they'd just written.

I ended up missing several events because I was busy helping people recover from crashes, helping them connect their computer to the video projection unit, and similar tasks. In order to protect my colleague, who would replace me midway through the expedition, I started insisting that Alison was not a computer network manager, and people should not ask her to perform such tasks. This, however, backfired: many people came away with the impression that Alison – who had built the majority of the Web site to this point – was unqualified to serve as Webmaster, much to our chagrin.

Telecommunications were a major problem. The ship's radio operator requested that all outgoing material be submitted as E-mail messages, and the E-mail and attachments could total no more than 120,000 bytes. Trying to disassemble a Web site into 120,000 byte segments – that someone else had to reassemble at the other end – was an incredibly time consuming task. Several times the radio operator informed me that the volume of mail I was sending was "too much" and I had crashed the system. I suspect it wasn't a true crash so much as the transmission failed, and he had to send the messages again. A single day's work might require two dozen messages, each with an accompanying 90 to 120K attachment.

Since the QuickTime videos I created were 10 to 20 times larger than the maximum attachment size, I went in search of more bandwidth. Many small towns in Alaska have Internet cafes, but I never could find any that allowed you to send attachments. While in Juneau, I was encouraged to try the city library, and walked a mile through light rain to the library. Located on top of a parking garage, the library had several machines open for public use, but you had to reserve them in advance. I waited around for half an hour, and was allowed to use a machine when it was idle, only to find mail was completely disabled on all library machines.

Also causing chaos: the expedition started just a few days after the Code Red worm caused world-wide havoc on the Internet, and mid-voyage, Code Red II caused even more havoc. Both these worms attacked Windows machines, and many of the Internet cafes were Windows-only – and completely shut down. I ended up carrying far more material back with me on the plane than I ever managed to transmit from the ship.

Probably the biggest problem was a shortage of time. Alison and I were supposed to build the Web site, but in practice we had to photo-document the journey, edit contributions from others, and then, in the wee hours of the day, try and construct the Web site. The expedition had an official photographer, but he was using standard film cameras, so his photos were unavailable. The digital video camera, while quite easy to use, proved to be more than most people wanted to

deal with; even after discovering the DV cassettes, only one student researcher made extensive use of it. Alison commented that "I worked harder than I ever have before" during her two weeks aboard the ship; we rarely got more than five or six hours of sleep, and were busy every minute we were awake.

## Successes

Fortunately, the successes greatly outweighed the failures. The biggest success: nothing broke. All the computer and camera equipment survived the voyage intact. Eric reported that one of the Nikon cameras was missing a lens cap; aside from that, everything survived. The Pelican cases, which went to and from the ship as checked airline luggage, more than lived up to their reputation.

The original plan was to use the iBook as the Web server, and use one of the PowerBook G3 laptops for creating and editing the site. In practice, both PowerBooks were used by other members of the expedition almost full-time; the Web site had contributions from roughly 60 different people during the expedition, and the PowerBooks were also used for preparing lectures, writing field notes, and similar uses. I frequently had to stop people from using the iBook as a word processor, too; while the iBook didn't mind running the Web server at the same time as a word processor, such use prevented people from using the iBook to view the Web site; the screen just isn't big enough for both, even if you could manage to time-share the mouse and keyboard.

Alison and I jealously guarded the office PowerBook G4 for our own use, though finding a place to write was a problem. I tried to avoid the library/bar/computer lab as people were constantly asking me to fix things. My cabin was full of boxes and cases, with barely room for the bed, so my favorite spot, when it wasn't raining, was the sun deck, an open deck at the top of the ship. With the very late sunsets, I could write and watch the surrounding scenery until nearly 10 p.m., sitting on one of the inflatable Zodiacs. Even after sunset, the screen on the PowerBook offered all the light I needed for writing, Photoshop image editing, and Web page design. I did startle several crewmembers making their rounds late at night; with my face illuminated by nothing more than the screen, they said I looked like a ghost or a demon. Without a doubt, if you need a portable Web studio, a PowerBook G4, with that amazing wide screen, is an essential.

> "The first major hurdle involved finding everything. I took two of the massive Pelican cases full of equipment, plus an extra, ordinary (but large) suitcase packed with the contents of several cardboard boxes, with me on the plane, earning an impressive 'excess baggage' charge."

Having a live Web site proved to be a spectacular success. In the first two weeks alone, the site had 28,000 hits, a phenomenal number when you consider that fewer than a dozen machines at any time could even see the site. Expedition members often spent hours going over the site, viewing historical material or, just as popular, reading the biographies of their fellow Expedition scholars. When we'd pull into port, visitors to the ship also had a grand time viewing the site. During the second half of the trip the ship visited Russia, and Alison reported the Russians were absolutely fascinated by the computer equipment – though disappointed they were Macs and not PCs. One Russian customs official made her rather nervous playing with the iBook Web server, and Alison was tempted to ask him to stop, but didn't know how.

In fact, if anything, the site was too successful: we were endlessly explaining that, yes, it was a Web site, but it was not connected to the Internet. We would patiently explain that, as far as the ship was concerned, the Internet went from one end of the bar to the other and no farther – but people would still try to sneak in and read their E-mail, or check the latest news on CNN. Several helpful individuals offered to "share" their Internet accounts if I could only connect them to the outside world, and clearly didn't believe me when I said we were not, in fact, connected, nor could we be. One of the computer-savvy high school students on the expedition reported that a core group was convinced I was deliberately "blocking" access, and tried to recruit him to "unblock" the network.

Eric's inspired testing of the FireWire hard drives

and CD-ROMs suggested they would be perfect aboard ship, and they were. LaCie's Pocket Drive could fit in a coat pocket, and I often found it convenient to hide away somewhere, prepare things for the Web site, copy them to the Pocket Drive, then carry the Pocket Drive into the computer lab and perform a quick FireWire-enabled update to the Web site. Providing the laptop was plugged in, the FireWire drive would draw all the power it needed from the laptop, so I could plug the drive in, copy files, and unplug it, with no shutdowns, restarts, or external power.

Similarly, the LaCie Pocket CD-ROM writer, once the CD-RW blanks were discovered, did a phenomenal job cranking out CD-ROMs. I had worried that the ship's vibration might make it unreliable, despite Eric's washing machine tests, but in fact I had only one bad CD out of roughly 50 attempts. Like the Pocket Drive, the CD-ROM writer didn't need external power, provided the laptop was plugged in to power.

This was the first major trip I'd ever taken without a film camera, relying entirely on digital cameras. The Nikon CoolPix 990 cameras were heavily used, by the Webmasters and other expedition members, and the quality was outstanding. Even in the summer, Alaska has very poor lighting, and it gets worse, of course, if it is raining, foggy or misty. Add in the vibration of the ship, or the far more vigorous motion of a bouncing Zodiac, and it was difficult to get clear pictures from even the best of cameras – but the Nikons did an outstanding job.

I was just as impressed with my Canon PowerShot S300 Digital Elph. This tiny little camera, about the size of a deck of cards, did not have the same resolution as the Nikons (2.1 megapixels compared to 3.34 megapixels), but the photos were just as good. Since I purchased a much, much larger memory card, I would often continue shooting pictures with the Canon long after the Nikon was full. Virtually all the video on the Web site was shot with the Canon, too: it can shoot between 10 and 15 seconds of video, with monophonic sound, in QuickTime format. The Nikon 990 can shoot up to 40 seconds of QuickTime video, without sound, but due to the smaller memory cards, I could never afford to use them for this purpose.

As expected, the USB floppy disk drive proved to be essential. Every evening, I spent an hour or two collecting floppies, and then transferring their contents to the PowerBook G4. I also used the floppy drives to



*Several of the expedition scholars commented that the Web lab had some "distractions" that they didn't normally face in their professional lives, referring to the liquor bottles lined up in front of the windows. In the background you can see some cars from the White Pass railroad in Skagway, Alaska. (Photo by Megan Litwin, taken with a Nikon 990 digital camera)*

prepare diskettes for the radio operator.

Surprisingly, the Canon flatbed scanner was heavily used: from the moment I set it up, it was busy scanning photographs, books, charts and papers for presentations, and artwork for the Web site. A couple of people used the OCR software included with the scanner to take printed copies of materials and turned them into editable text, which they then used in presentations. Several times I had to clean sand, dirt and plant remains from the scanner, so I suspect some of the scholars used it to scan in specimens they'd found during field trips.

### If I had it to do over

Given what worked and what didn't work, I would do some things differently, but most things would stay the same. The software, for example, worked out quite nicely; aside from version updates, I'd probably use the same suite of tools.

The biggest change would come in packing. While the Pelican cases did a fine job of protecting the equipment, there were severe problems in packing power supplies, batteries, chargers, cables and consumables (diskettes, CD-ROM blanks, etc.) separately. Much of the equipment couldn't be used until midway through

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the second week of the voyage because critical pieces were packed in cardboard boxes that looked just like all the hundreds of other cardboard boxes aboard the ship, and it took time to "discover" the missing pieces.

I'm still a fan of the Nikon 990 CoolPix camera, but larger Compact Flash memory cards, or multiple Compact Flash cards, were required. When the cards were purchased, 96 MB was considered a large card; today there are 512 MB cards. Larger cards, or multiple cards, mean you can keep on shooting pictures.

William Cronon, a well-known environmental historian on the trip, also had a Nikon 990, along with multiple memory cards and lots of rechargeable batteries. In four weeks, Alison and I shot roughly 1500 photos with the Nikon 990 cameras; Cronon shot roughly 20,000 photos, in large part because he had the freedom of switching out full cards for fresh ones. My Canon Digital Elph, thanks to a spare rechargeable battery and its larger memory card, accounted for another 2000 photos and QuickTime clips in two weeks. In short: bigger is better when it comes to memory cards and digital cameras.

While the PowerBook G3 and iBook laptops performed flawlessly, today there is a better machine: the *new* model 2001 iBook. With their more compact size, speedier processor, higher-resolution screen, and built-in read/write CD-ROM drives, they would have been easier to carry and stow away, and would have eliminated the need for the external FireWire CD-ROM drives.

Finally, I would have asked for more help. There was simply too much to do for one person. In particular, we failed to explicitly assign someone to take digital video, so hardly anyone did. We failed to explicitly assign someone to carry around the Sony cassette recorder and record whale sounds, or bird sounds, or interviews, so nobody did. While the digital cameras were used extensively, they were often used to document specific research projects rather than the expedition itself, leaving the Webmasters to do most of the photo documentation as well as all the photo editing and Web editing.

Was it worth it? Check out the Web site and see:

http://www.pbs.org/harriman/

*The observations and opinions expressed in this article are those of the author alone, and do not represent the position of any institution or company mentioned.*

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# MacWorld New York City 2001
# One-Day Bus Trip
# July 18, 2002

MacWorld New York will be held
July 16-19, 2002. Join Washington
Apple Pi for this **Fourth Annual Bus Trip**; it
will *probably* be on Thursday, July 18th.
Start making plans now!

# Creating fine art using a Mac— Melding tradition with technology

by Kathryn Murray

S OME TIME ago I spoke with Marianne Guigere about her artwork. I was curious how she was utilizing her Macintosh and peripherals to bring about her beautiful printed pieces. I was wondering how much of the manual kind of work she was still doing, or was the computer the exclusive tool of choice.

Our discussion ranged from choice of equipment to the hazards of working with chemicals and needing proper ventilation, to fixing inks, printers, digital cameras and color systems. Hopefully you will find the insights I discovered in our time together to be instructive.

Mavica digital camera—this is the one she uses for all of her shots. Bought two years ago, she has found it to output very good quality photos and it has the one special feature of using floppy disks. In a world of ever increasing numbers of peripherals, to manage her work this way was especially efficient. Marianne had the added benefit of having used her daughter's camera (the same Mavica FD 88) prior to making her purchase.

You might ask, what about the fact that new Macs don't have floppy drives. She did have to purchase a floppy drive to work with her G4.

The printer she now uses is an Epson 1280. Having originally purchased an Epson Photo EX, after four years she found the paper wouldn't feed anymore. Checking with the service department she concluded that sending it back and paying approximately $250 for the fix made no sense—that $500 for a new printer was worth it.

The 1280 is the latest in the line of Epson Photo printers and it does about the same quality as the previous printer. You can use 11 x 14 paper, which she prefers, since the prints work well in 16 x 20" frames once matted. The printer also takes rolls of paper and does banners, but this isn't helpful for the kind of artwork Marianne does.

We commiserated about the quality of products and
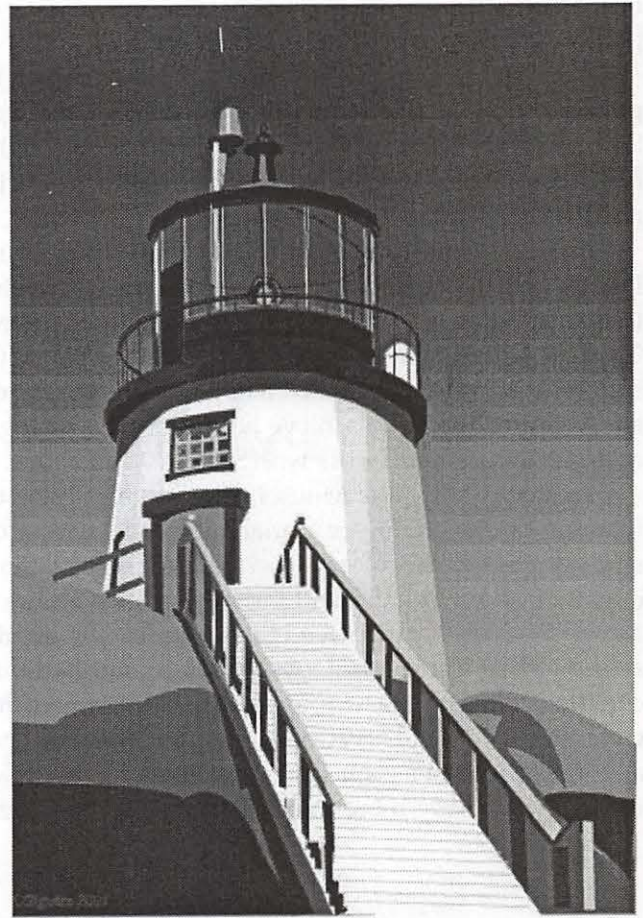


*Owl's Head Lighthouse*

that the life of the Photo EX printer had been so short. Both of us had had Laser Writers and both had used them for about 10 years. Marianne said she had run out a test page fairly recently on the LaserWriter just out of curiosity and found that there were in excess of 67,000 printed pages. My printer (a IINT) had a very demanding life and is still being used to proof copies of newspaper pages at this moment.

We discussed the types of inks that Marianne now uses. With the previous printer she ordered special inks to be sure that they were archival. This became a process unto itself. The archival inks she had used before she ordered through a mail order outfit called Digital Art and she was happy with them. (The archival inks she had used before she ordered through a mail order outfit called Digital Art and she was happy with them.) With the 1280 the manufacturer guarantees their standard inks for 25 years, but of course they can't guarantee them unless you use their paper.

Her work is printed out on 100% rag or ph neutral paper. And after years of no suitable papers, paper manu-

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facturers are now producing many beautiful (albeit expensive) papers for use with inkjet printers.

After printing her work she uses a fixative which is put out by Iris. The prints are sprayed lightly after they have dried. This is supposed to make the work more light fast. Marianne has discovered that the fixative works to make the pieces somewhat waterproof.

Programs she uses include Freehand, Illustrator, Painter and Photoshop. There are occasions where she uses Streamline and she used to use an old program called Collage. At one time Collage really provided her with some special tools, but as the other programs got better and were more able to achieve her needs, she let it go and isn't sure if it will work with System 9 and above.

Freehand offers the Munsel color system. Prior to working on the computer Marianne had done a lot of study of this specific color system and had utilized it frequently in her work. When I visited she showed me a box of samples that displayed the beautiful, and subtle system. What a surprise it was for her to find that this complex color system was available within a favorite computer program. This greatly simplified selecting and applying colors for a given print or painting and allowed for applying many more colors than would have been

practical working in silkscreen.

Within this color system is the ability to match any of those bits of color. Unfortunately not all colors in the system are available, but there is a tints and tones variable which can be used to compensate for the limitation.

I asked if she was exclusively working with the computer or was she doing some traditional painting or silkscreen work. She said that no, she wasn't doing any printmaking that way anymore and that sometimes she misses the actual silkscreening. You don't get that kind of thrill of applying the colors one by one and looking at the work develop. Of course with traditional silkscreening you would have to reduce the numbers of colors that you would run.

What she doesn't miss is what a waste it was when you made a mistake. If somehow a particular area got overprinted, or things didn't lay out perfectly you had all sorts of planning and printing go down the drain. On a computer you can make the corrections after you find the mistake and you haven't invested greatly in time and materials— and you don't lose the piece.

She does still do traditional acrylic painting (one of her paintings recently won a 1st price in a juried show in Rockville). However, she does do a lot of the planning
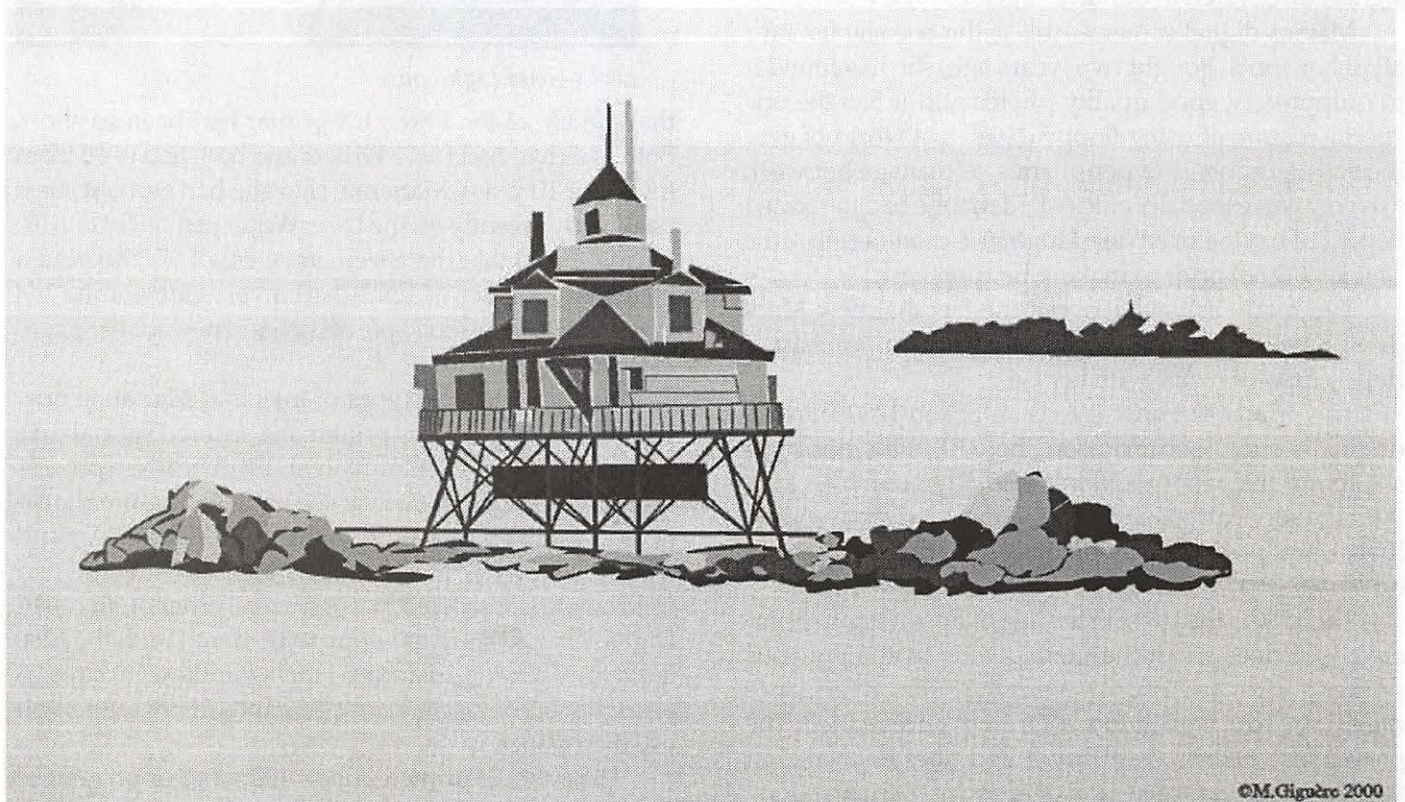


*Thomas Point*

and drawing for a painting on her computer.

Asked about the past summer and how her work had gone up at their retreat in Maine, she said that she was able to do four prints and four paintings. These new pieces that she worked on were brought on disk and they are scenes from New England from previous trips. She also took a lot of photographs for future reference and use.

I asked her about how she organizes her photos. This because I find that the dates that are applied to digital photos are annoying and just not useful. She said that she had a lot of photos stored on a floppy disks and lost some because the disks deteriorate over time. For that reason she decided she needed a system that really worked.

She took two months to take all the photos and catalog them. Placing them into a folder title ART and then within that a folder entitled PHOTOS and then she took all the photos and opened them in Photoshop and named them. All were saved as tiffs. The photos on disk were transferred to the computer and backed up on CD.

Beyond photos, artwork goes into another folder and there are categories such as notepaper, or Christmas cards. Then next they were organized into folders arranged alphabetically by name. It has been a huge job but the results–being able to work so easily have made it all worthwhile.

She found while up in Maine that she had some technical difficulties. Her new read/writable CD Rom wouldn't show up when attached to her older Power Mac. It turns out that this is true with a lot of the older machines—they can't see the new CD Roms. As a result she needed to bring her Zip drive up to Maine in order to be able to use her photos. Funny though, commercial CDs read just fine but ones burned with her own CD burner don't.

Asked if she had any shows she was planning for, Marianne told me she recently had a show at the Centlands Mansion in Gaithersburg, although nothing is planned like that until next October.

Up until five years ago she was doing mostly graphic design on her computer. There was little time to do her own work and be able to experiment. A transition period was when she did silkscreen work by developing and printing the stencils on the computer and then hand printing.

For the last two years she has been able to do her own work, focusing on printing with the computer. This has been a great time of being able to follow through on work she has had around, or been considering for years.

The way in which many of her prints are done is "I find a photo that I like. I crop it to focus on the area that most interests me, then I set about to clean it up, remove things that don't contribute to the composition and then redraw it and make the color selections. This may seem like a relatively simple process but it can take months in order to get the design and the colors that work just right."

"My prints are in editions of 200 and currently I have many available." You can see more of the work on her website: http://members.wap.org/m.giguere

She explained that her biggest problem is with the misconception that galleries have. Often the print is perceived as a reproduction and not an original print. Many artists are not clear about what they have produced and this makes it harder for those making original prints using computer technology to be accepted as creating original art.

Marianne concluded with, "there is no question that using the computer has made my ability to work so much easier and more effective. I couldn't do what I do without the Mac and new technology has been extraordinary." ∎
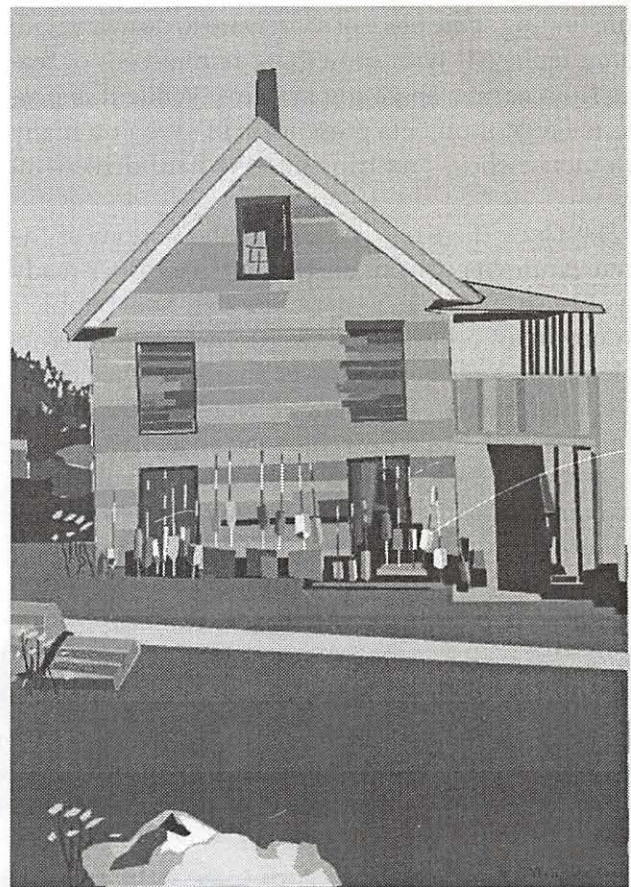


*South Harpswell Revisited—this work was originally a painting which Marianne got to rework on the computer and use the Munsel color system on. A myriad of colors has been used.*

# Setting Up the Dock

©Pat Fauquet

THE DOCK in OS X is probably the most hated and loved feature of the operating system. Many of the early articles written about OS X complained bitterly about it. Apple listened and has improved it, but just like other new things, users made early snap decisions without really giving it a fair try. I wonder how many of the early complainers are now using it without reservation, but have either never rebutted their earlier writings or written further articles. How many readers have never gone back to look for further opinions about the dock?

The OS X user should really give the dock a try before finding some piece of shareware to do away with it, only replace it with something reminiscent of features from earlier operating systems. While it is possible to "turn it off," its presence will save you many extra mouse clicks and trips into the hard drive window.

The Dock (Figure 1) resides at the bottom of the screen. A number of icons are present in the dock ready for your use. They are, in order: Finder, Mail (Apple's own new mail program for OS X), Microsoft Internet Explorer for X, iTunes, iMovie, Sherlock, QuickTime Player, and System Preferences. Note the thin white line that is next. It is followed by the an icon that takes you directly to the Apple OS X Web site, then the Trash Can. If an application has been started, there is a small black triangle under its icon. Clicking on icons of applications with the triangle is in effect, an application

> "The OS X user should really give the dock a try before finding some piece of shareware to do away with it, only replace it with something reminiscent of features from earlier operating systems. "

switcher. Click the icon of the program you want to make active. The dock will help you if you do not know the name of an icon by reveling it right above the icon. It is possible to add more applications (Figure 2) to the dock in order to use it as a launcher. Simply drag the application icons to the dock. As you add more icons, the dock can fill the width of the screen. As more icons are added they will automatically get smaller. If you do not like the order the icons are in, simply drag them sideways, one at a time in any order. Spaces will open to accommodate them. If there is an icon for a un-launched program that you would like to remove, simply drag it up and out of the dock. It will disappear in a pouf of smoke.

The thin line toward the right end of the dock (Figure 3) divides the applications from documents, folders, servers, Web sites, QuickTime TV channels, and the trash can. It is a great place to store icons that link to your document folder, perhaps a stationary item like a letterhead and documents you are currently working on. At the top left corner of each window in OS X are red, yellow, and green buttons(Figure 4). If you click the yellow button, that window travels down to the dock , out of the way, but still open, until you need it
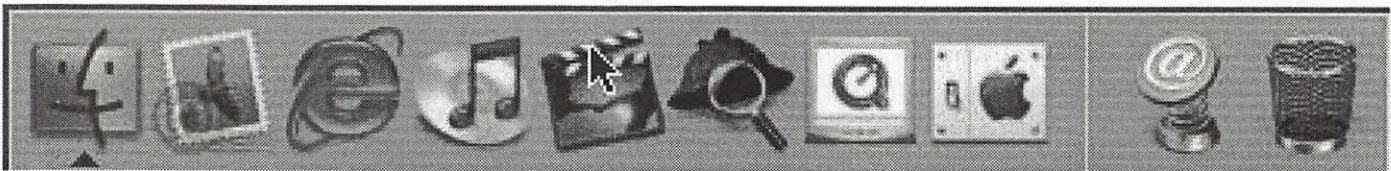


*Figure 1.*



*Figure 2.*
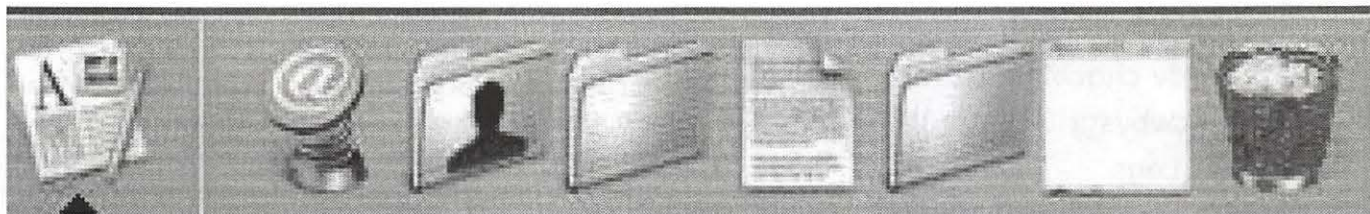
*Figure 3.*



*Figure 4.*



*Figure 5.*

again. So, in effect the dock replaces all those rolled up windows that used to clutter the desktop after you clicked the window shade button.

The thin line can also be used to resize the dock. Put the cursor directly over the line (Figure 5) and pause without clicking the mouse button. When the double-headed icon appears, click the mouse button and drag the line to the right to make the icons smaller. Click and drag it to the left to make the icons smaller. Hold down the contol key while you can see the double sided arrow to change the dock preferences (Figure 6).

Some applications, iTunes being one, have a number of commands that can be activated simply by clicking and holding the mouse button on their icon in the dock (Figure 7).

Clicking and holding on a folder stored in the dock will cause a pop-up menu to appear that can be used to navigate the folder (Figure 8).

If you hold down the Command (Apple) key, and press the tab key, the icons of programs that have been launched will become selected in order. Let go of the keys and the selected application will become active.

Hold down the option key while you press the icon of a launched application. A pop-up menu will appear with the Force Quit command.

Press the Command key while clicking on an application icon. The window that contains the icon will open.

As with all Macintosh controllers, there is a preferences window that can be used to change settings for the dock (Figure 9). The most modern way of getting to the settings is to press the control key on the keyboard while you click and hold over the line. That will bring up a contextual menu that allow you to change many of the dock's features. If that is hard to remember, you can also get to the dock settings through the "System Preferences" icon in the dock or under the "Apple" menu.

While dock size is self-explanatory, magnification may not be. When it is selected, the icons in the dock grow larger as you pass the
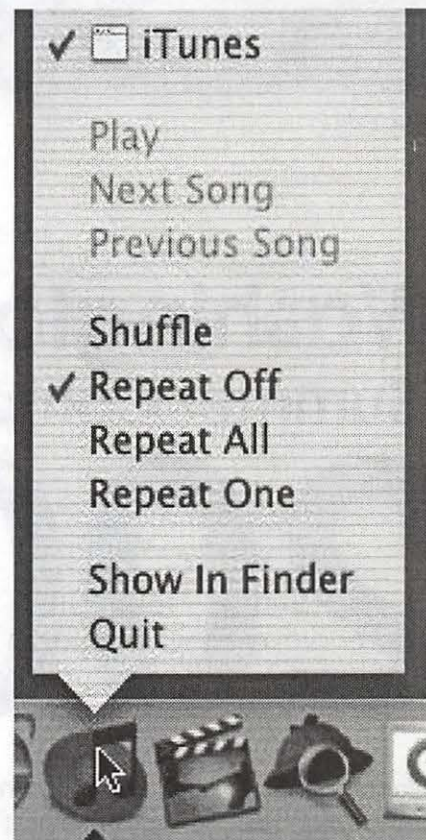


*Figure 6.*
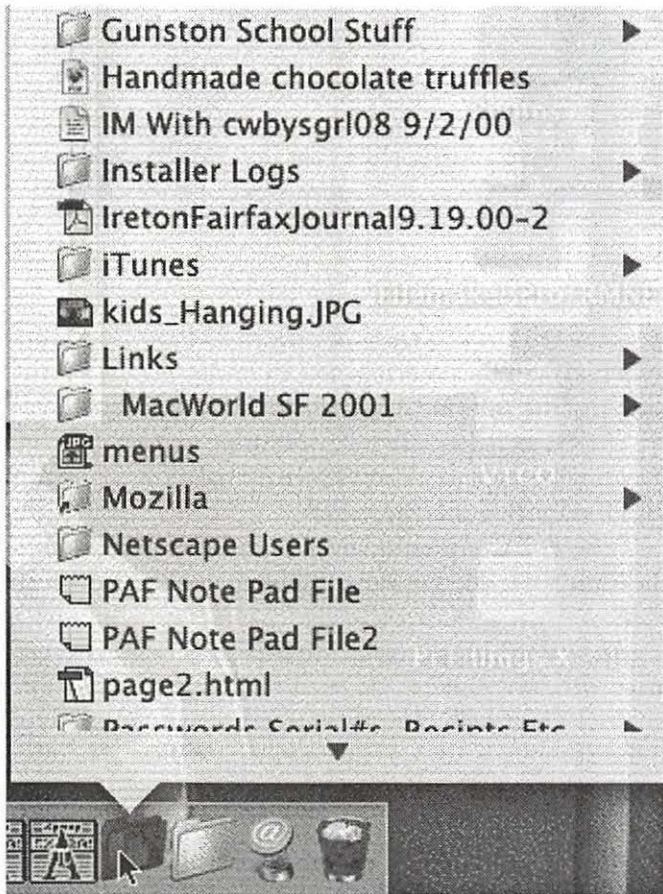


*Figure 7.*

Figure 8.

mouse cursor over them. This is very nice when your icons are tiny because the dock has lots of items in it.

Hiding the dock is an option if you do not like it at the bottom or sides of your screen. However it takes a moment to appear when you take the mouse cursor to the bottom or sides of the screen. I move my dock regularly, depending on what I am doing. I find it indispensable.

Minimizing the dock with the "Genie Effect" instead of the Scale Effect" is more impressive, but if you are a minimalist, you may prefer it. If opening applications are not animated, they do not bounce in the dock. Once again, minimalists may want to turn it off.

There is far more to the dock than first meets the eye. It replaces several well-liked features of earlier operating systems with an attractive, easy to manage central command area. If you are just beginning to use OS X, give it a try. If you have been using OS X for a while and have turned it off, give it another try. If you like it, but have not tried all the features discussed, keep this article handy and explore the dock some more. ■

*Pat Fauquet teaches many of the classes taught at Washington Apple Pi. She is a confirmed convert to OS X who dreads having to boot back into OS 9 now that she has really given OS X a try.*

# Washington Apple Pi
## Summer Computer Camps
# 2002
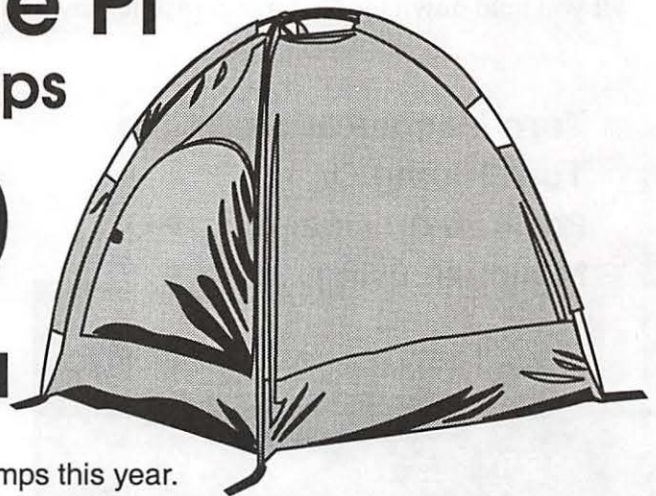
Washington Apple Pi will be doing several different Camps this year. Depending on interest, there will be camps for **students, teachers and seniors**. Contact the Pi tutorial program for details, tutorials@wap.org.

*The year 2001 saw a vast expansion in "hacker tools" for hacker wannabees: without knowing much, if anything, about computers, programming or networks, anonymous vandals could download tools that allowed them, with almost no effort, to attack hundreds, or thousands, of computers, for no purpose at all. This article, written as the year was just getting started, offers an interesting view into this odd subculture.*

# Adventures in Babysitting

**Chris Campbell**
Friday, January 19, 2001
01:17am MST

*"What in God's name can a man do at night in Philadelphia?"*
-Robert Heinlein

IT WAS A Friday evening, and there I was standing beneath the mammoth columns of 30th Street Station, the massive structure that is Amtrak's Philadelphia Basilica. Am I off to test Amtrak's Acela; the 4 hour ride to Boston, home of L0pht, EMC and legal seafood? No. Am I off to Lynchburg Virginia, to Randolph Macon Women's college to enjoy the best odds that I will ever have of an interesting Friday night? No. Of course not. (They won't let me back on campus after the red-headed British lesbian incident.) No, instead, I have been convinced by 'p0lywog' that I really should check out a 2600 meeting, and 30th Street Station is the venue.

I didn't see the point. I knew when I was a kid about the technology with boxing- red, beige, blue, all that wild-west BBS kind of scene; and then came Signaling System 7. That put a plug into those sorts of exploits. Why would they still be having meetings? That was the question that got me there. What could they possibly be talking about?

It was this curiosity that got me to accompany 'p0lywog' on this thankless waste of a Friday evening; that, and it is Philadelphia on a Friday night. Heinlein's words echo in my mind as we approach the rag-tag "Matrix" groupies that comprise the 2600 meeting.

Angelina Jolie had managed to be a shining light in the waste of celluloid that had been the movie "Hackers"; unfortunately, her stunning voluptuousness was not here to offer salvation to this trendy lot. No, here was life imitating typecast; Hollywood concepts of the elite underground. But I cannot judge on first impression. Sure, I am the System Administrator of a network that is over 10,000 users strong- and I am not like this- but that does not mean that these kids are clueless just because they are trendy.

Let's get to know them. Where to start? Well, since it's 2600, how about John Draper? I hear that he's sort of into Linux these days. Maybe they know what he's been up to...

"John Who?" the kid in the black PVC pants replies.

"Draper. John Draper- Captain Crunch?"

"Huh? Yeah, I think I've heard of him. Isn't he that guy that works with Mudge at l0pht?"

"Hmmm. No? He used a Captain Crunch whistle to generate a 2600 Hz tone to get free phone calls..."

"2600? Cool! That is so ironic!"

"Yeah, it's positively biting."

I pull 'p0lywog' aside, demanding to know where the punchline came in. This was a 2600 meeting, and not only had the first person I spoke to have no clue, but neither did the next half dozen. "There are some older members," one of them proudly beamed, "that probably know who that guy is, but they don't come to the meetings often."

The thing is that 2600 has little or nothing to do with telephones any more, it's more of an entry point for kids that want to get into computers and "The Scene". The Scene? I am not too sure about that. With my father being a Systems Administrator, I spent most of my childhood- most of the last quarter century actually- in 'the scene', but the scene that I knew was more about soda, stale Twinkies and beards then about minidisks, Rollerblades, plastic pants and Cafe Lattes.

But it's the new guard, and this is the Kindergarten, if you would, for the young kids. This is what

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## A Pat Fauquet Quick Tip

**The Question**

Hi Pat,

I know you are really busy, but wondered if you have any thoughts on this >problem. I have a friend who is using Photoshop 4.0. Recently the cropping tool in Photoshop became greyed out and she now has to drop everything into PageMaker to crop it. Why might she have lost the tool and how might she get it back? Should she just reinstall Photoshop?

**The Answer**

It definately sounds like time for a reinstall, before (or with) that, open the system folder, find the preferences folder, then throw away these preference files—Finder Prefernces System Preferences QuickTime Preferences Photoshop Preferences Restart, then empty the trash

That will often fix application problems without a reinstall.

Next, try reinstalling Photoshop.—be sure not to install the ATM or QuickTime modules (so that means a custom install). Installing those two parts will often mean REAL trouble as Photoshop 4 is really old and those parts have probably long been updated. If they are installed, the computer WILL CRASH if any version of OS 8 or 9 is in use.

If those don't work then it will be neccessary to re-install the operating system. There is a little program called "CleanInstall Assistant that makes that task pretty easy.

# Things Your Mother Didn't Teach You ...XXVIV

**by Bob Morrison**

I REMEMBER reading somewhere that "Controlling control panels, Extensions and some other System folder's files, ranks right up there with herding cats, in the chaos-and-frustration department." I have to add to that: searching available documentation for information about extensions that would be useful to Mac beginners and novices has been equally frustrating.

Highly technical discussions are easy to find... and difficult for beginners to understand. When the subject is discussed for beginners, the writing is vague, ambiguous and full of modifiers such as, "In general" or, "it can mean." I found many tips... how to do things, but practically no mention of why one would want to do what was being explained. The attitude seems to be "there is no use trying to explain extensions to a beginner—they wouldn't understand." I am not sure my discussion will be any more helpful to a new user... I just hope so.

Extensions extend the ability of the Macintosh operating system to do something. Some of these extensions came with your computer when it was new. Others are added when you install a new program. These are small files that are loaded into memory (RAM) when you start up your computer—the small icons that appear across the bottom of your screen are evidence of extensions being loaded. These are loaded into the Extensions folder which is stored in the System folder. Some are placed in Control Panel folders and some Control Panel files are placed in the Extension Folder, but we need not be concerned with that at this time. Let's just concentrate on the Extensions Folder and the Extensions Manager.

When I want to see all of my extensions I click on the Apple Menu—go to Macintosh Hard Drive and then to System Folder and click on Extensions. That opens my Extensions folder where I find that I have 198 items. Information is provided about each one—when it was last modified, size of the file, and what Kind of a file it is. If I want more information I select (single click) the item, click on the File menu and click on Get Info.

We don't get to actually do anything to an Extension—but we do get to turn it on or off. To do that we must open the Extension Manager. We find this cheerful fellow by clicking on the Apple Menu—then to Control Panels, and click on—you guessed right—Extension Manager.

There we find the extensions listed with still more information—and with a Check Box in front of each. You will probably find that all or most have a check in the box. That means it is enabled—it is ready to work whenever it is needed. If there is no check in the box, that means that extension is disabled—it still exists, but is not available—it is disabled.

To enable it you must place the cursor on the box and single-click. The check mark will appear in the box. You have enabled that extension. Well, not quite.

Remember when the extensions loaded when you started up? The little icons that went swiftly across the screen—well, the one that you just checked didn't get loaded—it was left on the hard drive. So, what do you do now? If you haven't already thought of it, as you expect, I'll tell you. Select Restart from the Special menu. The machine will restart and in that process it will search the Hard Drive for the extension file you have asked for and load it into memory where it becomes available for use.

While you have the Extension Manager open you will see a flippy triangle in the lower left-hand corner and beside it says Show Item Information. Click on the triangle to flip it and an information box will appear. Then when you select (single-click) any item, more information about that item (in most cases) will be provided. I encourage you to look at these things—the information may or may not mean much to you at first, but you will know where to look for information that you will need in the future as you continue to climb up that dreaded thing called—the Learning Curve.

Next month I plan to discuss some problems that can occur that are related to extensions. In the meantime, take the time to read the September column "Mac Tips and Tricks" on the LCMUG website [ed. note: <http://www.lcmug.com/SeptNewsletter.pdf>. If it is "too far up the Learning Curve" for you—don't worry about it—some of the fundamentals discussed here will help you to understand some of what the writer, Tristan Moore talks about. And what you don't understand gives you a baseline to start from to learn more. Just remember, this is not stuff that you must memorize—it is information that enables you to understand the discussions that lead you upwards on that Learning Curve. ∎

From the October 2001 Lake County (CA) *Mac User Group News.*

# For Your Eyes Only

### by Dr. John Marshall

AS AN optometrist one of the most common visual complaints that I encounter on a day-to-day basis is eyestrain that is related to the use of computers. I thought some of the actions we take to help people suffering from this increasingly common problem would be of interest and hopefully some help to the MacPug People. People suffering from stress induced from computer-use present with a myriad of symptoms that range from specific to the vague and include things like: headaches when working with the computer; dry, burning eyes; fatigue; strain and even double vision. Certainly all of these things can occur any time but increasingly the common denominator with the person who works on a computer is the computer itself. We have watched these symptoms steadily increase as computer usage has increased over the past ten years or so.

So…what do you do if you are experiencing any or all of these symptoms? Certainly it is imperative to have an accurate and updated glasses prescription (if you wear glasses). Low uncorrected refractive errors that normally would not cause problems with your vision might in fact cause difficulty in the intense near point world of the computer user. If your eyes are dry or prone to dryness, that situation can be aggravated by computer use. There is a tendency when we are concentrating on a task for the blink rate of the eye to slow down some. This slowing of the blink can cause the eyes surfaces to dry and can occur very quickly in the person who already might have a marginally dry eye. What to do? Blink!

By just being aware that the blink rate is suppressed you can consciously blink more. This does not need to be an exaggerated or forced blink but a normal drop of the eyelid. Just looking away from the computer can also help solve this problem. What do you do if blinking is not helping? When the eye is just too dry for normal blinking to maintain proper hydration you may have to add some tears, artificial tears or tear substitutes to your own natural tears. There are some good ones on the market now and these do not require a prescription to get them. One that we recommend a great

deal is called Refresh and if you are using them more than 3-4 times per day I would recommend Refresh Plus. Another very good drop is GenTeal, which is also an unreserved drop in the eye. If you have a really dry eye you need to talk to your eye care person or give me a call.

Some things you can do to reduce stress when working on the computer: Lighting can be very important. If you have windows behind you, close the blinds or drapes to prevent glare on the monitor. Contrast on the screen will be improved in a slightly darkened room especially if you are using overhead fluorescent lights. Some monitors come from the factory set with brightness and contrast controls at their maximum. These should be set at the lowest level that produces a good clear image. If you are one of those lucky people who get to wear bifocals consider some of the following options.

First thing to consider is the height of your monitor. The ideal monitor height (for a bifocal wearer) should allow you to "just" look over the monitor. This will allow a slight down gaze when looking at the monitor and make your bifocals easier to use. If you find yourself tipping your head back to use your bifocal to see the screen consider lowering the monitor even more if possible. You might consider an alternate near vision lens of some type. Some good examples are high quality progressive add bifocals (this is probably the most common lens we use for our computer operators that have to work at several different distances). Another good lens is the trifocal lens that allows you to work at varying distances. For a person who spends a lot of time on the computer and uses a trifocal we will normally set these a little higher than normal to help them at their specific monitor height. Another good alternative is a dedicated computer lens and these come in several forms. These lenses are designed strictly for use on the computer or other near work. These can work very well but you need to work with an eye care practitioner who is sensitive to the demands of the computer user to find some of these specialty lenses.

We will occasionally prescribe computer glasses for people who don't need a bifocal but need to reduce the stress on their eyes when working up close as in computer use. What about using tints and coatings on your glasses? I frequently recommend the use of these types of optical aids to increase eye comfort while working on the computer. Depending what kind of lighting conditions you work under may influence the type of tint that we would recommend. The use of tints and

"Some things you can do to reduce stress when working on the computer: Lighting can be very important. If you have windows behind you, close the blinds or drapes to prevent glare on the monitor. Contrast on the screen will be improved in a slightly darkened room especially if you are using overhead fluorescent lights."

antireflection coatings can help to reduce glare and thus reduce strain and improve visual function.

Whew! I know that was a lot of information. Let me quickly review it.

1. Accurate refraction is very important
2. Deal aggressively with dry, burning eyes
3. Keep brightness and contract controls at a comfortable levels
4. Slightly darkened rooms improve contrast on your screen
5. Keep glare from windows and overhead lights to a minimum
6. Use of proper tinting and coatings may be very helpful
7. Use of specialty lenses to reduce stress
8. Set your monitor at the proper height that is best for your correction

As you can see there is a myriad of factors that can come in to play and cause difficulties with your eyes when computers get involved. Normally these are problems that can be remedied fairly easily although sometimes a combination of strategies is required to keep you and your computer working smoothly as a team. If you have questions please don't hesitate to contact me at docwahn1@aol.com and enjoy happy comfortable computing! ∎

From the August 2001 issue of *MacPUG Papers*, newsletter of the Permian Basin MUG (TX0.

# Bring 'Em Home Alive ... and Interactive

by Skip Mundy

ALTHOUGH WE were thousands of miles away having the vacation of a lifetime, we stayed in touch with friends, business and family better than if we had been home! What follows are some tips, knacks and small arts related to keeping connected with your Stateside life while you are remote with a capital "R-" In addition, I'll close with a way to store all your electronic sights, sounds and observations onto an archive CD to share with everyone.

It started back in the early 90s when my daughter decided to spend her junior year abroad in France. At that time, long distance phone calls were VERY expensive ($3+ per minute), and the snail mail systems made question and the answer to that question about two weeks apart. So my separation anxiety met up with my devout cheapness which motivated me to come up with a better communication solution.

Listserves were not as sophisticated then as they are now, but I found a way to post a question about how to hook up a modem from the first Macintosh PowerBook to a French telephone, so that we could communicate by e-mail.

In two days I had 45 responses, many of which said it was impossible, some of which said "What's a Macintosh?" However, three people delivered the golden news I was seeking including locations of stores in Paris that might have the necessary adapters and people to contact who were successfully communicating with people in the US. One person even gave me detailed instructions on how to hotwire a French phone in case my daughter could not find an adapter! We used a very early piece of software made for PCs given to us by MCI which was then a new provider in Colorado Springs with a very experimental presence in France. Somehow, she found an adapter and persuaded someone at the telephone company to give her a local num-ber to dial in Paris. We corresponded this way daily for the whole year she was in France.

There is nothing like initial success to make one resistant to barriers the next time a similar issue surfaces. Daughter #2 did her junior year in Spain in 1998. By now, AOL had become a huge provider and had a local number in Madrid. Soon, however, she had accounts through both her Spanish university and her US university. So, when at home with her host family, she accessed the Internet with AOL and then used NCSATelnet to get to her university e-mail accounts.

Since those days, we have gone through many PowerBooks and many trips with many Internet Service Providers. It has become easier and easier to communicate remotely, but not necessarily cheaper. Here are a few pitfalls to avoid:

1. When receiving Local Access Numbers from your ISP, make sure there are no toll charges connected with their use. You may have to do this by calling the telephone operator in that area code and explain where you will be [the actual telephone number of the hotel room or whatever] when there is a choice of access numbers. I remember a blissful week spent in Monterey, California, where I chose to use local numbers rather than the $.10/minute 800# connection. (Remember, I am devoutly CHEAP!) Well, that little diversion to a local access "free" number cost me $79 in hidden toll charges within the same area code!!! Painful lesson.

2. Along the same lines, check with your hotel, motel, B&B, etc. about surcharges they might assess for each call. If it costs you a dollar for each call, you will want to have your responses to earlier messages drafted off line and be ready to make short answers to others while connected.

3. Set up a WebMail account (AT&T and Earthlink have great ones). Decide before you leave what to do with mail left on the server. For instance, if you leave it on the server, you will have it all available on your desktop machine when you return, but you will have to download it every time you log on remotely. If you delete it from the server, you will only receive new mail each time you log on remotely, but archive copies will only reside on your PowerBook and that may be risky. Make this decision early so that confusion and lost documentation don't become your traveling companions. Also make sure to load in all the e-mail addresses (personal and business) you will need before you leave home.

4. If you have a university or school system email account, determine whether or not they will let you telnet in from remote locations. Many universities have been stung by hackers using telnet and therefore have blocked access using former telnet routines. Check with the IT department through the Help Desk for how they want you to communicate remotely.

5. Automate and test your connections before leaving home. Eudora allows you to set up multiple "personalities" for distant log ins. Remote Access is part of recent Mac operating systems. Find it in Control Panels and make separate configurations for each local access number you will use in each city. You won't have to kill time while on the road doing this and then realize too late that you left the local numbers at home.

6. If you have an older PowerBook, you will need an adapter for the power cord plus a converter for the voltage of the country you visit. Starting with the G3 PowerBooks you will just need the adapter plug, because these wonderful laptops sense and automatically convert to the voltage and cycles of whatever country you are in. In either case you will need an adapter for the telephone connection. In the UK it's called a BT to USA adapter and is available in most electronic and hardware stores in larger cities.

**Other considerations:**

• Power converters come in two flavors: under 50 watts and over 50 watts. Use the former to charge your computer and batteries for camera, Walkman, GPS, etc. Use the latter for heaters, hair dryers, coffee makers, etc. Use rotating sets of rechargeable batteries for most toys, but take along some heavy duty AAs for when you don't have time to recharge your sets.

• Buy a good lightweight set of earphones for use on the plane and for listening to CDs through your PowerBook.

• There is a PCMCIA card which will mount the Smart Media Cards your digital camera uses onto your hard drive. My routine this last time worked flawlessly. Upon returning to the nightly lodging, I transferred all photos through the card reader onto the hard disk of my PowerBook. Then while the events and places were fresh in my mind, I used the slide show feature in GraphicConverter to rename each photo from Picture #1, 2, 3, etc., to the actual location of the photo. It's so

easy to forget or confuse landmarks even days later. You can then send a small version of the best photo of the day home with observations-of-the-day! I erased the media from the camera card and used it over fresh each day, keeping the photographs catalogued by regions and dates in their respective folders on the PowerBook.

• If you have a PDA like the Palm, use it to take notes of your adventures during the day, transferring those via the cradle to your PowerBook at night which helps greatly to make journal entries more accurate and filed closely with the photos that support those adventures. By the time you reach home, it will be a much easier task to refit all of your media into a format for sharing.

Having done slide shows, web pages, booklets, etc. before, I decided to organize this recent trip onto an interactive CD to share with friends and family. Using a page layout program to integrate photos, maps, journal notes, promotional material from museums, etc., and a little post-vacation Internet research, I exported 4+ gigabytes of information to Acrobat which compressed everything down to a size manageable enough to fit on a CD. With Acrobat I was to able to add navigational buttons linking all parts together and also to an Appendix of information which may help others set up a similar trip using the same e-mail addresses, phone numbers, etc.

To this I added installers for Mac and Windows versions of QuickTime and Acrobat Reader, preceded everything with a ReadMe file explaining how to navigate and still had room for an interactive song, a poem and all of my original photos in their same folders made on the trip. That way, everything I might wish for reference in the future is archived in one place! Better yet, friends and family can choose to look at as much or as little as they choose!

Ever been to the slide show of a relative recently returned from a vacation trip????

Here's a Win/Win alternative. ■

From the August 2001 *Silicon Summit*, newsletter of the Silicon Mountain Mac User Group (Colorado).

# Basic Anatomy of Your Computer

by John Krough

THE PROCESS of upgrading a Mac can be quite involved, or not, depending on what you choose to upgrade. This is the blessing and the curse with computers—they're extremely upgradable, but upgrading a machine can be confusing, frustrating, and time-intensive, and a badly done upgrade can even damage the music software and files you've accumulated. To help you make smart decisions when choosing various upgrade paths, and to ensure you don't hose things in the process, we'll look at the ways your Mac can be upgraded, what benefits certain types of upgrades provide, and steps you can take to make the experience as smooth as possible.

We'll take a modular approach. Let's start by looking at updating the operating system software.

### Updating the OS

Why upgrade the OS? The most important reason, as it applies to music software on the Mac, is so your computer has all the necessary software components to use certain types of devices such as FireWire hard drives, USB peripherals, and even more important, processor accelerators. When installing a G4 processor upgrade in a G3 machine, for example, it's recommended that the OS be updated to version 9.x to be able to take full advantage of the velocity engine (more on this under "New Processors" below). Earlier operating systems don't have all the software needed to fully utilize this processor.

Apple has discontinued sales of any OS earlier than 9.0; however, you can still download updates for versions 8.1, 8.5, and 8.6 from Apple's website. OS 9.x has been tested by Apple to run on all Apple-brand PowerPCs, but not clones. Updating the OS on a Mac clone is risky at best, and since clones are no longer being manufactured, we can't recommend updating to the latest OS with these machines. In fact, my old Powercomputing clone will not allow its operating system to be updated to anything later than 8.6.

On the Mac, updating the OS is a fairly straight-forward process—OS X not withstanding—and shouldn't remove or hobble any of your music software, provided you pay attention to the options presented to you when running the installer/updater software and you back up the System folder in case you need to put any third-party drivers, extensions, and so on back afterwards. Backing up doesn't mean you have to duplicate the contents of your entire hard drive, although you can if you like. Since you'll be changing the system folder by installing a new OS, the system folder is what you'll want to back up. My rule of thumb: You can't consider your data to be "backed up" unless it exists on more than one external non-hard drive storage medium such as a CD-ROM.

Complete instructions for installing a new OS are included with the CD-ROM containing the installer software, but the basic process involves booting the computer from the Mac OS CD-ROM. To do this:

**Step 1:** Insert the OS install disc into the CD-ROM Drive.

**Step 2:** Wait for the disc to appear on the desktop, then shut down the computer.

**Step 3:** Turn on the computer while holding down the C key on your keyboard. Continue holding the C key down until you see the "smiling face." When the computer is finished booting up, the desktop pattern will show a light-colored background that says "CD."

**Step 4:** From here, run the OS installer (located on the CD-ROM) by double-clicking on it. Follow the instructions that appear onscreen. Depending on which OS version you're installing, you may have the option to preserve third-party extensions, drivers, etc., that have been placed inside the current System folder. If not, grab your backup disc.

Once you've updated a piece of software, whether it's the OS or a multitrack recording program, chances are you'll soon discover that the updated software uses more RAM. Suddenly 128MB doesn't seem like that much.

### More Ram

The same handling rules apply when it comes to adding RAM, hard drives, PCI cards, and other internal hardware. However, not every Mac uses the same kind of RAM. I've received emails from readers telling me how they got a great deal on RAM only to find out when it arrived that it was the wrong type for their machine.

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How do you know what kind of RAM your Mac takes? Easy. It's listed in the user manual that came with the computer. If you lost your manual or are too lazy to dig it out of the hall closet (like me), you can pop up to the tech support section of Apple's website, www.info.apple.com/applespec/applespec.taf. Here you'll find detailed specs for every model of Apple computer. For example, I learned that a Power Mac 7300 uses 168-pin DIMMs with a minimum speed of 70ns. Nifty. Eh?

Oh, you want to know which brand of RAM to buy? That's a bit tougher to answer because there are many to choose from. Based on personal experience, I don't recommend buying the cheapest RAM you can find online just because it's cheap. Instead, go to a respected Mac-related website, such as www.macworld.com, and get their picks for good deals on RAM from respected vendors. Since there are many choices, this is an area that could take you a while to research. A good way to start is by asking what brand of RAM users of your favorite MIDI sequencer have had good luck with. There are a number of user-based websites and forums out there (such as www.musicplayer.com), and I'm always surprised by how willing Web-savvy musicians are to provide help and suggestions in an email thread.

When it comes to installation instructions, it pays to have your Mac's user guide handy. The illustrations and photos I found in the doc for all the Mac's in my house (Powercomputing clone and a blue-and-white G3 with a G4 upgrade) were clear and extremely helpful. Maybe you'll have to go spelunking in the closet after all.

### Video Monitors

With regard to monitors, there are two areas I'll address: replacing one monitor with another (e.g., moving from a 15" to a 21"), and adding a second monitor. The reason for either option should be clear—more screen real estate.

If you're replacing a monitor, the new one may come with special software. In most cases, getting a new monitor to display something isn't difficult. You may need to fine-tune the color and resolution, though, which can be done from the Monitors control panel (located in the Control Panels submenu of the Apple menu).

For you to connect more than one monitor, the computer will need to be equipped with more than one monitor port. Macs don't come standard with more than one port, so you'll need to install a graphics card that's equipped with two or more monitor ports. You can set how the computer uses multiple monitors from the Monitors control panel. There isn't anything mystifying about this, but if you have questions or trouble, Mac Help (accessed from the Finder's Help menu) can give you more information. As is the case with most upgrade options, you can get help for a specific piece of software or hardware from the manufacturer.

### New Processor

Updated software is the primary catalyst for upgrading the hardware installed in a computer used for music production. You want to run the latest or best audio processing/recording tools, right? In many cases this means getting a faster processor. More hard drive space and more RAM will only take you so far. David Zicarelli agrees: "Doing a processor upgrade is the most important step to making current software run adequately. Hard disks have gotten bigger and cheaper, but they haven't gotten appreciably faster."

Some early PowerPC Macs dating as far back as 1997 can be upgraded with G3 or even G4 processors. Determining which upgrade is right for such a computer depends on how much you want to spend (G3 processors are priced in the $179-399 range, while G4 upgrades will cost upwards of $500), what software you hope to run, and whether you're willing to leapfrog interim 8.x operating systems and install OS 9, which is recommended for G4 upgraded machines. Either route should put you in a fast enough "processor bracket" to run a software synth or two along with a MIDI/audio sequencer. Just don't count on running a ton of effects plug-ins at the same time.

Newer computers such as the blue-and-white G3s and first generation G4s are prime candidates for processor upgrades, as you'll see marked improvement in performance with audio recording and virtual software instruments.

There's a special advantage to upgrading your existing Mac to a G4, primarily because you'll be able to run software that takes advantage or the G4s velocity engine—essentially a supercomputer on a chip. Also, in some G4 models you can install an additional processor, turning a single processor machine into a multiprocessor (MP) machine. But before upgrading your machine with a single or multiprocessor G4 option you should find out whether the software you use will be able to take advantage of these new processor types.

Some, but by no means most, of the music apps support multiprocessor Macs and the G4's velocity engine. If your software of choice isn't coded to take advantage of these processor designs, you're going to see only a slight increase in performance. Typically, you'll be able to run a few more plugins, but not lots more.

Software that can take advantage of the velocity engine is called "Altivec enhanced." The advantages of Altivec enhanced software are clear. For example, according to BitHeadz, users of their Unity—IDS software sampler (which is Altivec enhanced) should be able to get twice the polyphony compared to running the software on a pre-G4 computer. I've worked with Unity DSA on a G3 and a G4, and I'm inclined to agree with BitHeadz's claim. There are only a few MP-savvy music programs out there currently, and I haven't tested any of them on an MP machine yet, so I can't say what payoffs to expect from a dual processor Mac.

This is a hot topic. There's quite of bit of speculation from the music software world right now surrounding Apple's OS X. The word is, none of the sequencer/recorders currently available for the Mac will run under OS X, and that for them to work under the new OS, they'll need to undergo significant rewriting. But what does OS X have to do with MP Macs? Previous operating systems don't fully utilize the multiprocessors. This means that to really reap the processor benefits of MPs, you'll need to run OS X, which currently isn't yet happening for music programs, to put it plainly.

When it came to recommending one processor upgrade over another, none of the software developers we queried gave their stamp of approval to a particular upgrade manufacturer. Some of you may recall I gave Newer Tech's G4 card for blue-and-white G3s high marks; unfortunately, Newer has since gone out of business. However, two other upgrade manufacturers whose names popped up in conversations with various music software reps were Sonnet (www.sonnettechnology.com) and PowerLogix (www.powerlogix.com). Both companies offer G3 and G4 upgrades; however, only PowerLogix offers processor upgrades for Apple iMacs.

A year ago we wouldn't have even mentioned the iMac for music, because it lacked a PCI slot, making it useless for audio programs. But over the past few months, USB and FireWire audio interfaces have been unveiled, which could help make the iMac a decent choice for music after all.

## How Far Back?

For whatever reasons, musicians who use a Mac seem to hold onto their computers longer than those who use a PC. Maybe it's because there were more "professional" music programs originally for the Mac. In any case, there are still those who have machines dating back ten or more years—ancient history in processor design compared to today. If all you're interested in is recording MIDI tracks, then just about any of the yesteryear Macs will do the job, provided you don't update your MIDI sequencer to a more recent version. Newer versions aren't likely to run on anything older than a circa 1990 Mac.

The good news is, processor upgrades are still available for machines going as far back as the first PCI-based PowerPCs and clones (7300-9600, PowerBase and up, Umax J700 and S900). However, you'll only get so far with these machines. Though the upgrades typically include fast cache memory, which will increase performance for some application-specific operations, the bus speeds aren't increased, which will ultimately be a limiting factor.

To run native audio recording software, most manufacturers we asked recommend a Mac with nothing older than a 604e processor, and "ideally with a G3 or G4 processor upgrade," says Steinberg evangelist Rodney Orpheus. "Anything older than that is going to be more trouble than it's worth."

## Troubleshooting & Fine-Tuning

If you need to troubleshoot any hardware or software problems with your newly upgraded machine, there are two software resources you should be familiar with. The first is the Extensions Manager, which is accessed via the Apple Menu's Control Panels submenu. From within the Extensions Manager you can set which extensions (i.e. drivers) will be active when the Mac is restarted. Sometimes extensions will conflict with each other, and to determine which extension is causing problems, it's necessary to turn extensions on and off until you've zeroed in on the offending system file.

You can create custom sets of extensions specific to certain programs, such as your multitrack MIDI/audio recording software, or applications such as surfing the Internet. After installing a piece of software, you may find the computer locks up on restarting, or refuses to boot completely. Usually this is a sign of extension conflicts. Holding down the Shift key while the

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Mac reboots will cause all extensions to be turned Off, allowing the computer to completely boot up. Once it has, you can tweak the Extensions Manager for possible conflicts. Another option is to hold down the spacebar while the Mac is starting up. Partway through startup, the Extensions Manager will appear, allowing you to turn on or off specific extensions, or choose a basic "Apple only" extension set to be loaded.

Another effective tool for helping you get to the bottom of any snags in the system is the Apple System Profiler, which is also accessed via the Apple menu. Very detailed information is available with the ASP; however, you can't make changes to System settings the way you can with the Extensions Manager. In addition to these two software helpers, there are hordes of website resources at your disposal.

### Preserving Software Authorizations

Here's an area of great interest for many of us. If you swap out one hard drive for another, or add a new hard drive to your machine and make it the startup drive (the operating system is installed on it), it's possible to remove (screw up, in other words) the authorizations for any plug-ins or stand-alone programs that use challenge/response copy protection. Simply copying over the contents of the previous startup drive won't work. According to Allen Cronze of Pace, "if you switch out the hard drive you will lose your authorizations. Formatting your current drive can also be tricky. If you're not doing a low-level format, you shouldn't have any problems. If you do a low level format on a hard drive, you'll have to redo the challenge/response authorizations, but they'll be the same as the originals. So in some cases you can avoid trashing your authorizations by backing up your authorization preferences. It used to be that updating the operating system would also remove challenge/response authorizations; however, software manufacturers have fixed this in their copy protection schemes over the last year or so.■

From the July 2001 issue of *Macintouch*, newsletter of the San Diego MUG. Although it is titled "Basic Anatomy..." it seems as though it would be better titled "Upgrading Your Computer" and it is slanted towards music applications.

# Take Advantage of those Fonts!

by Ralph J. Begleiter
Updated by Dave Ottalini

AMONG THE MOST disappointing observations I have made when reviewing the work of new Macintosh owners is the limited creativity and personality they impart to their word processing documents. Nearly most MacNovice documents you see are created in the Mac's "Geneva" font, a simple, clear typestyle to which most MacNovices 'default" in their initial documents. (When printed on a laser printer, "Geneva" becomes "Helvetica," because laser fonts are somewhat different from the fonts your Mac system uses to look best on your screen.)

Many novice Macintosh users default to the "Geneva" font because their Mac automatically chooses it in the absence of any other instructions. Other users *are aware* they can change fonts, but are too timid to try it. Still others are daunted by the somewhat intimidating process of *installing* new fonts in their System.

Perhaps the saddest cases are those MacNovices who have recently parted ways with other computer systems which simply don't make a variety of typestyles available as easily as the Mac does.

You're using a *Mac* now... liberate yourself from the typestyles chosen by a computer manufacturer! Choose a typestyle ("font" in Mac lingo) which expresses your own style, or which represents the tone of the document you're writing.

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"Some of the most functional font collections are available as shareware from Washington Apple Pi - either from the Public Domain Library or from the TCS (the on-line bulletin board system)."

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Even the Mac's basic selection of fonts offers plenty of variety. Try "Palatino" for a formal appearance, or "Courier" if you insist on making your pages look like they were produced on a typewriter. "Palatino" makes nice headlines. And "Helvetica" looks great in *italics*.

But take a look at some of the *other* fonts available on WAP disks or in software stores. There are many collections. Some mail order firms offer packages of hundreds of fonts for less than $50. Among them, you'll certainly find a font to fit your personality.

Some of the most functional font collections are available as shareware from Washington Apple Pi - either from the Public Domain Library or from the TCS (the on-line bulletin board system).

To help you select a font that's right for you, don't hesitate to experiment. Create a document in which you *deliberately* mix a wide variety of fonts. Create a paragraph for each different font. (A few words are simply not enough to make an intelligent choice.) Select each paragraph (by dragging through it with your mouse); then choose a font to apply to that paragraph from the font menu. Choose several different *sizes* for each of your choices.

Now print the document on the printer you use regularly. Examine the printouts carefully. Compare the attributes of each of the fonts you've sampled. Does it print well? Is it easy to read? Is it too "stuffy" or too informal? Is it "you?" Which size is right for your documents?

A simple way to install (and remove) fonts from your Mac's System is to use one of the commercially available font-handler programs – Suitcase or Adobe Type Manager. These programs, once installed in your System Folder, make choosing new fonts truly a breeze.

Installation instructions included with each of these programs are easy to follow. Once they're installed, you'll rarely have to bother with any tricky font installation again. They even let you create font "groups" for use with specific programs or files. Both of these programs allow you to use and discard fonts at will, *without ever making changes in the basic operating System File* of your Mac.

Short of using one of these efficient programs, you can install new fonts directly into the Mac's System. If you're using System 7, 8 or 9, drop font icons onto your System Folder. Your Mac will deposit them in the right place.

If you're still using an old version of System 6, use the Apple "Font/DA Mover" included on your

> "A simple way to install (and remove) fonts from your Mac's System is to use one of the commercially available font-handler programs – Suitcase or Adobe Type Manager. These programs, once installed in your System Folder, make choosing new fonts truly a breeze."

computer's "System Tools" disks. (The Font/DA Mover's icon looks like a moving van carrying the letter A.)

Be forewarned: using the Font/DA Mover can be confusing. Until System 7, the font installation process was never very "friendly." There are no icons involved in the Font/DA Mover. Just a full-screen dialog box which invites you to open the System File in which you want to install or remove fonts, open the Font Files containing the fonts you want to use, and move fonts between the System File and the Font File. The Font/DA Mover displays a sample of any font you select so you can recall a font's appearance.

Despite my warning, don't be discouraged. You really can't "break" anything by experimenting. If you have to use System 6 and the Font/DA Mover, always work on a copy of your System File, *not* the original System File on your System Tools disk. That way, in case you *do* make any mistakes, you can start fresh with a clean copy of your original System File.

Once you've installed the fonts you want (and all their sizes), restart your Mac using the newly modified System File. You'll see your new font choices appear under the font menus of all your applications.

Remember that varying the fonts you use isn't just a "frill." It's a tool to make your documents more readable and more representative of your own style. Changing fonts is part of the process of communicating your ideas.

One more caveat: Don't overdo it. Convey your style through the font you choose for a document; *don't use a dozen styles through a dozen fonts in a single document.* Too many fonts can make a document look silly. They make a document difficult to read. They distract attention from the ideas you're trying to convey.

Choose your fonts thoughtfully and apply them judiciously. You'll gain new respect and individuality for your Macintosh-produced documents. ∎

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# Using Stationery

### by Ralph J. Begleiter
### Updated by Dave Ottalini

WITH THE 20th anniversary of the Macintosh just around the corner, it's a good time to note that there are still two groups of MacNovices: one which began using the Mac several years ago, and a second group just beginning to discover the Macintosh, probably with the lower-priced iMacs or iBooks which became available in the last two years. The second group probably can't even imagine a Mac with "only" 128K of memory (the description of the first Macintoshes sold in the early 1980s).

Each group has slightly different needs. After all, the newest users, in many cases, are just learning many Macintosh basics, such as how to use the "Finder," "System," and "Fonts." The older group of novices has probably mastered those techniques and is working with sophisticated new computer programs which have grown up with the Mac. We try to take these *new* MacNovices into account, bringing up to date some of the basic tricks-of-the-trade with which older users have by now become familiar.

Despite the evolution of the Macintosh environment, fundamental skills and techniques have only been refined, not replaced. OS X (Ten) will change this radically, but it's still important, for instance, to give some thought to arranging your disks and desktop for the most efficient use, and to organizing your System files to suit your own needs. And despite the flood of software which is available, it's still time-saving to take advantage of basic tricks such as using "Formats" instead of creating new documents every time you write a letter. These are skills which bear refreshing – and introducing – to today's MacNovices.

"Formats" offer a clear example of a technique novel to first-time computer users. When you typed a letter on your old fashioned typewriter (remember those?), you set margins, tabs, spacing and type styles (if you even had that choice) each time you sat down to work. Unless you're accustomed to an electronic typewriter with even a small memory, you had to recreate the "look" you like for each letter. And when you *switched* formats (among, say, a letter to your brother, a letter to your clients or an interoffice memo), you had to start all over.

That's the sort of thing you never have to do again once you've established your Macintosh formats. It's worth taking the time to set up various formats now. If you're satisfied with the way they look, you can reuse them indefinitely. On the Mac, these kinds of documents are called "stationery," because they resemble the preprinted stationery you keep in your desk drawers. One important difference, however, is that Macintosh stationery documents actually can contain much more than just a preprinted letterhead. They can contain type style, margin, and tab settings, as well as headers, footers, page-numbering and even graphics or pictures. All of these elements, if saved in a "stationery" document, are preselected just they way you like them… every time you open a "fresh" stationery document!

Let's start with word processing – the most basic Macintosh application. Create a format (a stationery document) for your inter-office memos.

Open a "new" document in your word processing program. If rulers are not already showing, display them by choosing SHOW RULERS or similar from the appropriate menu. Following the instructions for working with rulers, adjust margins, tabs, spacing and justification the way you'd like the memo heading. You might choose to CENTER the heading, for instance or INDENT it.

Type your heading: "Inter-Office Memorandum." SELECT the heading and choose the FONT and STYLE you prefer. You might want to boldface the heading. Enter a couple of carriage RETURNs to leave some white space.

Now, change the RULER settings. Adjust a new set of margins, indentation and spacing to accommodate the information lines of your memo format. You'll probably want the words "To," "From," "Date," and "Subject" to be flush left. Set them that way. And, perhaps you should boldface them, too, while you set the FONT and STYLE for these headings.

Place your cursor after the word "To." Choose a FONT and STYLE which you'd like to see in the body of your memos. Type ONE BLANK SPACE. Repeat the process adjacent to *each* of the information headings, *remembering to choose your font and style before typing the single blank space.* Now type your name after the blank

space following "From." Your name should appear in the font and style you've chosen for the body of the memo format.

After the blank space which follows "Date," enter a few carriage RETURNs for more white space. Next, create yet *another* set of RULER settings. Set this one for the standard typing margins, tabs and spacing you'd like to see in the body of your memos. Place your cursor on the line closest to this final ruler. Choose the font and style you selected for the body of your memos. Finally, click your cursor on the "To" line and leave it there. If you like what you see, you'll never have to do all that formatting again!

Choose SAVE AS... (not SAVE) from the FILE menu. When you're asked for a name, call it "Memo Format" (or "Memo Stationery"). Before you click SAVE, be sure to select the option which saves your document as "STATIONERY." This option should appear in the SAVE AS... dialog box. Now, click SAVE.

When the SAVE operation is complete, CLOSE the document (do NOT "save changes" – don't worry; it's all still there) and re-open it by choosing OPEN and selecting the newly created "Memo Format" from the dialog window which appears.

Here's where you'll appreciate the value of the work you've just done to set-up the format. When the document opens, you'll see your headings and name all in place, with the cursor flashing in just the right spot to begin your next memo on the "To" line. Go ahead, type a sample memo to someone on your staff. The fonts and styles should be just the way you set them, *without having to do all that formatting again.*

When you're ready to SAVE all or part of your new memo to the staff, choose SAVE from the File menu. You'll be asked to provide a new name. Call it "First Memo." Next time you need to write a memo, *the blank stationery format, complete with all your setting, will still be fresh and blank and listed as "Memo Format!"* The memo you wrote to the staff will be listed under "First Memo." You'll never have to setup again, if you always use your stationery document to create a memo. The original format will remain unaltered.

Elementary? Sure! Easy? Yes. But this is a technique often overlooked by anyone new to computer word processing and the Macintosh.

Now, go ahead and create formats for all your correspondence. Create a "letterhead" format complete with your letterhead in the font and style you prefer. Even include a graphic logo, if you like (cut-and-paste from your graphics program, or from a clip-art collection). You can create several different Letterheads, for different purposes. For personal letters, set up a cursive font. For letters to someone whose eyesight is poor, set up a LARGE TYPE format.

The Format technique, as you probably realize by now, is not exclusively a word processing idea. It's useful across the board with all kinds of Macintosh applications. Take spreadsheets. You use your spreadsheets to keep track of monthly accounts? Set up a format, with all the standard headings you use each month. Call it "Account Format." Then, when you enter payments and receipts each month, choose SAVE and name the new documents with the name of the month. Always preserve the blank format for the next time you need a new month.

Or take business graphics. Set up the type of charts you like. Or report covers (in a paint or draw program). Or announcement posters. Cover sheets. Almost anything. Set up the formats using the "stationery" feature. Then choose SAVE to create specific documents.

One more tip. Apple realized a few years ago how useful this "stationery" idea can be, and it's now a standard part of the Macintosh system. Look in the GET INFO window of any document on your desktop. In the lower right hand corner, you'll see a box marked "Stationery pad." To turn *any* document into a stationery format, just check this box. Next time you open it, you'll be opening a *copy* of it, and saving the unblemished original for future use.

There are alternatives to creating format documents. Among them are setting formats to CUT & PASTE into the SCRAPBOOK for reuse. But the SCRAPBOOK doesn't preserve font and style information. And besides, it's not as convenient to scroll through a scrapbook full of formats until you find the right one. It's easier to choose OPEN and select the correct stationery format from the alphabetized list the Mac offers you.

You might wish to create a new folder on your Macintosh desktop in which to save all your stationery. Call the folder "Formats" or "Stationery" and imagine it as a drawer full of blank, preprinted stationery. Pull out a blank "sheet" to create a new document. The formats won't take up much space on the disk, and you'll have them at your fingertips whenever you need them. (Apple/ClarisWorks actually includes a "stationery" folder that's quite handy. All documents inside this specific folder appear in ClarisWorks' opening dialog box.) ∎

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# Buying A Hard Disk Drive

by Ralph J. Begleiter
Updated by Dave Ottalini

AMONG THE most intelligent purchases you can make for your Macintosh computer system is a large capacity hard disk drive. A hard disk offers virtually unlimited data and program storage space, and significantly speeds up your computing.

But buying a hard drive shouldn't be a hasty decision, even if you can buy 30 or 40 Gigabyte drives these days for less than $300. And it isn't an easy chore. It's worthwhile doing some research and protecting yourself against a less-than helpful retailer.

I'm not going to attempt to make recommendations in this column about which disk drives you should consider, but I'll offer some guidelines about how to do your shopping and what to consider.

First, decide on your needs. From experience with the Macintosh over many years, I've found that users have discovered that hard disk storage space is like money: you can never seem to get enough. In 1984, when the Mac was first sold, a 20 MB (20 megabyte, or 20,000K) hard disk drive seemed extravagant. At that time, 20MB drives sold for more than a thousand dollars! Today, for around one hundred dollars on sale, you can buy a 10 GB hard disk drive that is not only of better quality, but offers the higher rpms (7200 rpm is best) needed for iMovie and disk-intensive graphics, etc. Most new Macs these days come with large disk drives installed, often 10-20 Gigabytes.

If you use your Mac heavily with pictures and digitized sounds, for heavy-duty desktop publishing or video production, you'll need the largest disk drive you can get (larger than 20 GB). Movie, graphic and sound files use lots of space. If you use your Mac mostly for word processing, light duty desktop publishing and accounting or budgeting, you can get away with a smaller hard disk drive.

As a general rule, it's a good idea to buy the largest capacity disk drive your budget can afford. You won't

"I'm not going to attempt to make recommendations in this column about which disk drives you should consider, but I'll offer some guidelines about how to do your shopping and what to consider."

regret it a year later.

The next most important factor is the style of hard disk drive: mounted internally inside your Macintosh, or externally outside the computer.

Internally mounted drives are very convenient. You don't see them. You often don't hear them. You don't have to remember to turn them on, or off. They're always ready for work. And they're generally slightly less expensive than external drives (you pay for the case and power supply in an external drive). But, when an internally mounted disk drive fails for some reason, your may have to take your entire computer out of service so it can go to the shop for repairs.

An external drive comes mounted in a separate box, often designed to sit right next to your Macintosh (under in Classics, SEs and older Macs). It plugs into a "port" on the back of the computer. The big advantage of an external drive is that when it fails, it may be repaired without taking the computer out of service. Likewise, when your computer needs repair, your disk drive (with all its valuable and confidential data) doesn't have to accompany the computer to the shop.

External drives are simple to install yourself. Internal drives bought by a MacNovice should usually be installed by a qualified technician. (Many of Apple's recent Macintosh models, however, are designed so almost anyone who can work with a screwdriver can install an internal hard disk drive. Older models are trickier.) Again, WAP volunteers can probably do this for you most any Tuesday Night at the club's offices in Rockville.

Because an external drive transfers its data through a cable and a connector at the back of your computer, it's data transfer rates are usually somewhat slower.

Another key factor is noise. Keep in mind how

you'll use your drive. Will it be mounted right under your Mac, where its fan will add to the sounds of your computer right under your nose? Will it be mounted elsewhere else, some distance from the computer (under the desk, for instance) where noise won't be so noticeable? Will it be mounted inside your computer?

Other factors are less important. Speed, for instance. Unless you're handling multi-megabyte video, graphics or accounting spreadsheets, I don't think you'll notice the difference between data access speeds by your hard disk drive of a few milliseconds. Unless you need speed, it's fine to buy a slower, lower-priced drive (Hard disk drives are advertised with data transfer speeds, but these are usually useful for comparison only. Actual speeds depend a lot on other factors in your computer's setup.)

Software accompanying your hard drive is another consideration. All hard disk drives require some software to make them identify themselves to your Mac, and to make them separate and find your data. As is always the case, good software is better, bad software is worse. But you can always buy better software separately if the programs which come with your hard drive are cumbersome. ("SilverLining™" by LaCie, Ltd. is one of the best software packages I've found for managing a hard disk drive. FWB also makes a highly-recommended program for managing hard disk drives.)

Other factors you may want to consider include:

• Does your drive have an indicator light? This light advises you when your drive is actually reading or writing data. (Who cares, really, unless you want to know that your drive is actually operating. Some drives' software offers an indicator on your Mac screen, instead of on the drive itself.)

• Do the read/write heads of the drive "park" themselves safely and automatically when you shut down? (This is an important safety feature to protect your data from errant heads. It's almost always standard on today's drives.)

• Who's the manufacturer of the drive? Will the company exist next month?

Once you've settled on several drive models to choose from, you'll want to decide how to buy. From a local dealer? By the Internet or mail from a mail-order Macintosh firm? By mail or phone directly from a manufacturer? Or even perhaps buying a used disk drive from another Macintosh user who's outgrown her disk drive?

Here's where factors such as reputation and con-

> "External drives are simple to install yourself. Internal drives bought by a MacNovice should usually be installed by a qualified technician.... Again, WAP volunteers can probably do this for you ..."

venience come into play. Buying from a local dealer will almost always be a little more expensive. And a local dealer is likely to sell you the drives he stocks, rather than the one you have picked out for its features. But you know where he is, should something happen.

Of course, the "big-box" stores like CompUSA, Circuit City, Staples, Office Depot and the like usually stock a large selection and back their products. What you don't get is Mac expertise usually - something a local dealer that sells Mac products can provide.

Buying a used drive comes with the same disadvantages as buying a used car, but with the advantage of low price (Are you buying someone else's problems? Ask why someone is selling her drive.) Buying on-line or from a mail-order house comes with the reputation of the firm, but with recourse only by phone or mail. Buying from a manufacturer comes with the reputation of the firm, sometimes a very low price and, often, a longer warranty.

If you buy on-line, by mail, or by telephone using a credit card, you are entitled to certain well-specified protections under federal law (the "Fair Credit Billing Act"). You also can get help from consumer agencies such as the Better Business Bureau (1515 Wilson Boulevard, Arlington, VA 22209) and the Direct Marketing Association (6 E. 43rd Street, New York, N.Y. 10017).

Since buying a hard disk drive involves spending anywhere from about $200 up, you'd be well advised to read thoroughly the excellent reports (including drive-by-drive comparisons) on hard disk drives on C/Net or ZDNet and other Mac web sites, in MacWorld or MacAddict magazines just to get a feel for the variety of companies producing drives. (Often, even an out-of-date article can be helpful in alerting you to considerations you might not otherwise think about.) ■

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# Hands-On Review: DoubleTalk

**By Bill Fox**
**MacsOnly.com**
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Connectix. Price: $99 list

**P**ROS: EASY to set up and use, familiar to Mac users, works very well, network doesn't need to support AppleTalk, no problems encountered with Mac OS 9.1

**Cons:** Unidirectional

**Rating:** Outstanding, 5 out of 5 Exclamation Points: Brought to you by Macs Only! Copyright 2001 by Bill Fox, reprinted here with permission.

Mac users in an enterprise environment have had a tough time surviving during the last five years or so with the wholesale adoption of Wintel computers and Windows NT networking in the enterprise and now education environments. Connectix has been a hero to Mac users with its incredibly excellent software Virtual PC. Windows NT does have AppleTalk Services for the Macintosh (SFM) and the IT departments of many organizations do a good job of implementing it to support Macs on the company network. However, many either don't implement SFM or poorly support SFM if they do. An alternative in those cases has been DAVE by Thursby Software ($149) which makes a Mac look and function exactly like a Wintel on the network or PC MacLAN by Miramar Systems ($199) which does the same for a Wintel on a Mac network. Connectix just released its solution, DoubleTalk, at Macworld Expo in San Francisco.

DoubleTalk allows a Mac to connect to any PC running any version of Windows (95, 98 or ME, including NT and 2000) on an ethernet network and to transfer files with the PCs, print to a PostScript printer on a Windows network and log into and access password-protected resources managed by a Windows server. The Windows network does not need to support AppleTalk. DoubleTalk will work with any operating system that uses SMB (Server Message Block). Connectix provided an evaluation unit of DoubleTalk to Macs Only! for this review.
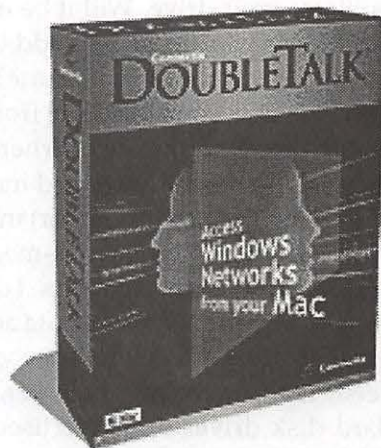
## What you get

The DoubleTalk box contains a CD ROM, a printed user guide, a serial number card, a reference card for the Connectix web site and an instruction sheet for avoiding a conflict with Connectix Virtual PC's networking. The CD contains the installer, a Read Me file, a Known Issues (14 of them in v1.0) file, the user guide as a PDF file and a folder with an extension for use only with Mac OS 9's Multiple Users with restricted or panel users. The 60-page printed user guide is a high quality booklet with five chapters. It is simply written and well illustrated and contains a FAQ, a list of error messages and a glossary.
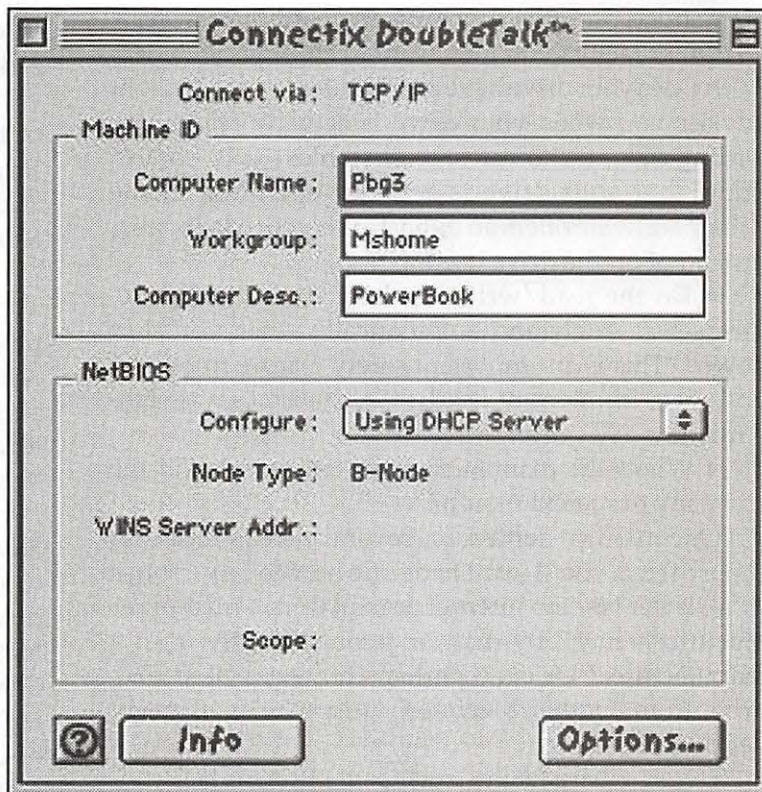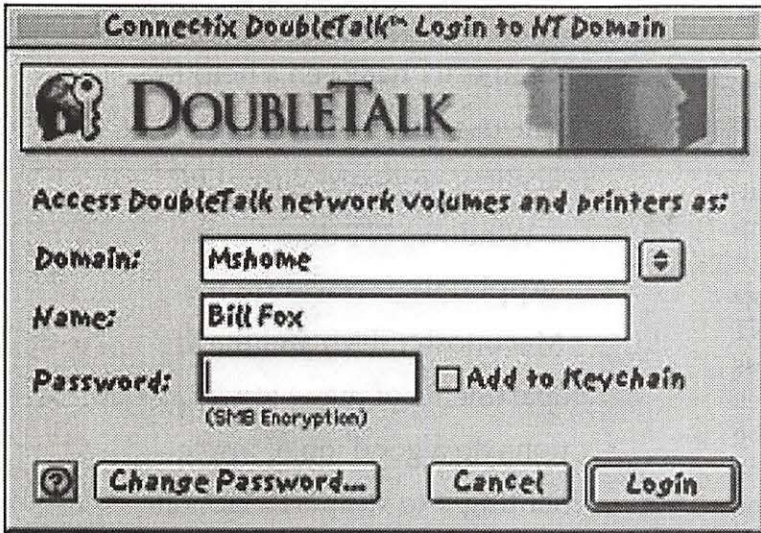
## Installation and Use

The installer places a control Panel, an extension and a control strip module in their appropriate locations in the system folder. A folder containing two applications (DoubleTalk Setup Assistant and DoubleTalk Login Assistant for NT servers) and several other files is placed in the application support folder in the system folder. The DoubleTalk Setup Assistant launches after installation and allows a choice of the home/small office or corporate/institutional configuration and several details needed to commune with PCs like the workgroup name. The results are entered by the Setup Assistant in the control panel shown at right.

We installed DoubleTalk on a Power Mac 8500, choosing the corporate/institutional configura-

## Copy Speed in Seconds for a 52.6 MB File

| Direction | DoubleTalk | NT SFM |
|---|---|---|
| Mac To Server | 95 | 110 |
| Server to Mac | 75 | 75 |
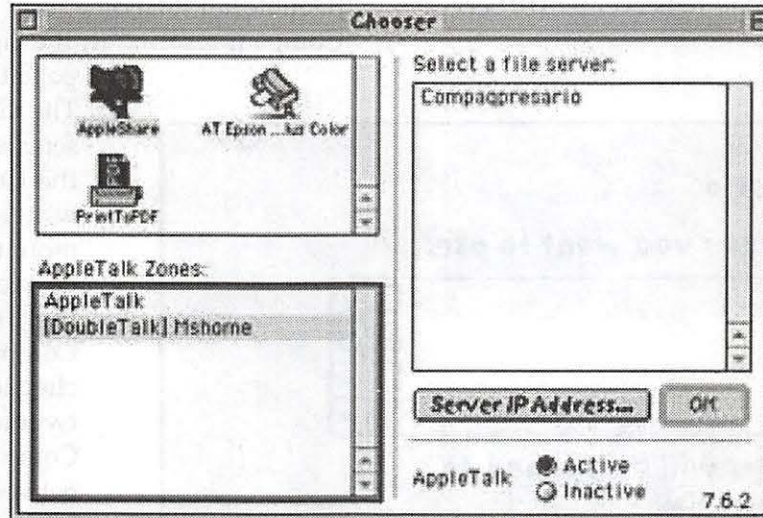


## Copy Speed in Seconds for a 39.3 MB File

| Direction | DoubleTalk | FS-TCP/IP |
|---|---|---|
| To Compaq or G4 | 130 | 115 |
| From Compaq or G4 | 115 | 90 |

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tion and on a PowerBook 2000 (FireWire), choosing the home/small office configuration. The 8500 is connected via ethernet cable to a Windows NT server network that contains mostly Wintels (90%). The PowerBook is connected by AirPort to a small LAN consisting of 6 Macs and a Compaq Presario 633 MHz running Windows Me. Both the 8500 and the PowerBook were running Mac OS 9.1.

The DoubleTalk login dialog box (shown on page 62) was used to connect our 8500 to the Windows NT network. The login window appears at startup unless disabled (unchecked) in the DoubleTalk control panel. If disabled at startup, the login window can be launched from the alias under the Apple Menu or the control strip module. After logging in, opening the Chooser, selecting the AppleShare icon in the upper left window and highlighting [DoubleTalk] in the lower left window all of the network's shared resources appeared in the right window. We connected to the shared resources, i.e. shared servers and PostScript printers with no problem. Printing worked normally with PostScript printers (Laserwriter 360 and HP 8000 series).

We tried copying a 52.6 MB folder of 39 files to and from a shared NT server using DoubleTalk and NT's AppleTalk Services for the Mac. Here are the results:

Copy Speed in Seconds for a 52.6 MB File Direction DoubleTalk NT SFM Mac To Server 95 110 Server to Mac 75 75

> "Connectix has been a hero to Mac users with its incredibly excellent software Virtual PC. Windows NT does have AppleTalk Services for the Macintosh (SFM) and the IT departments of many organizations do a good job of implementing it to support Macs on the company network."

DoubleTalk's copy speed is similar to using NT's AppleTalk Services for the Mac on the same network, maybe even a bit faster in the slower upload direction.

Then we used DoubleTalk to connect our PowerBook 2000 to a shared drive on our Compaq Presario. This was accomplished by simply opening the Chooser, selecting the AppleShare icon and "[DoubleTalk]Mshome" and then double-clicking on "Compaqpresario" in the right window (see image page 63 between copyspeeds). The subsequent window presents a list of shared volumes on the Compaq, one or more of which can be selected and mounted on the PowerBook's desktop (see image left). Copying files to and from the Compaq was no problem. We checked the copy speed between the PowerBook and Compaq using DoubleTalk and between the PowerBook and a Power Mac G4 on the same network using File Sharing's TCP/IP option. A 39.3 MB file was used. Here are the results:

Copy Speed in Seconds for a 39.3 MB File Direction DoubleTalk FS-TCP/IP To
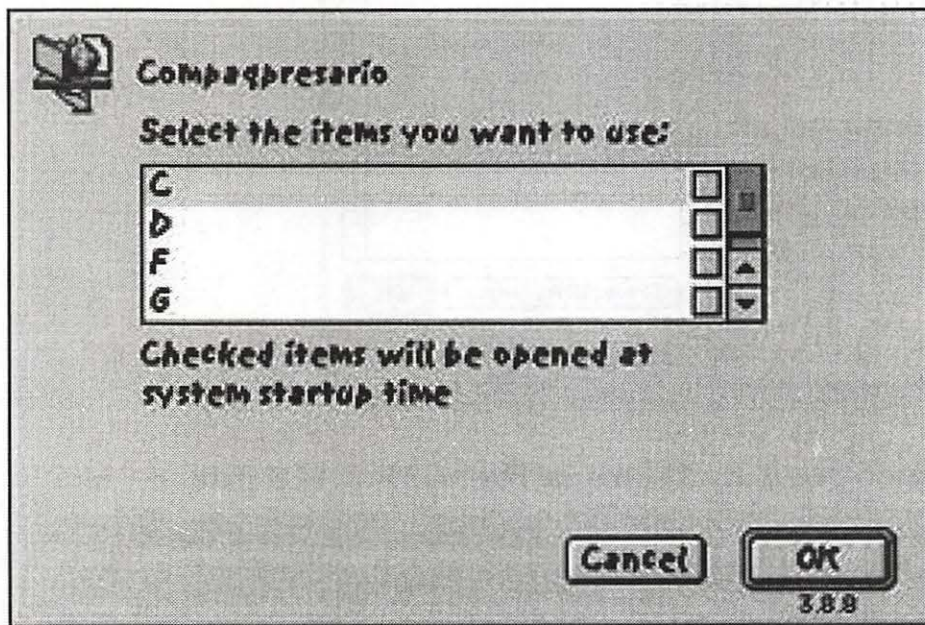
Compaq or G4 130 115 From Compaq or G4 115 90

The copy speed between the PowerBook 2000 and Compaq using DoubleTalk was comparable but a bit slower than between the PowerBook and G4 using File Sharing and TCP/IP.gg

## Conclusions

Connectix's new DoubleTalk is a super addition to the suite of Mac software available to provide interoperability among Macs and Wintel computers on a network. The setup and use of DoubleTalk is easy and will be familiar to Mac users, more so in our opinion than other interoperability solutions. DoubleTalk needs AppleTalk enabled on the Mac that it is installed on but uses the TCP/IP protocol to communicate over an ethernet network with the Wintel PCs so the network does not need to support AppleTalk. DoubleTalk is a one way solution, i.e. a Mac see all Wintel PC shared resources and can get files from and send files to those Wintel PCs but the PCs can't see the Mac. The one way nature of DoubleTalk should not present a problem in most cases. Its ease of setup and use along with a reasonable $99 price makes DoubleTalk a sure winner among its peers. Connectix has hit another grand slam home run for the home team. ∎



*Garage Sale—"Little boxes all in a row."*

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# Hands-On Review: Our iPod

By Bill Fox
MacsOnly.com
© 2001 Bill Fox

ALMOST TWO weeks ago we were able to see and use an iPod demo at the Tysons Corner Apple 1Store and reported favorably on what we saw. Saturday afternoon we returned and picked up one
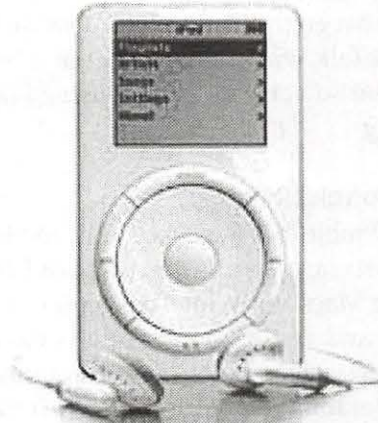


*The iPod is a sleek music playing machine*

for ourselves. Fortunately, the Apple Store had a good stock and about a dozen were stacked in back of the Genius Bar.
- **What You Get:** The first thing everybody will notice is the iPod's fabu-



*Garage Sale—"Even twins love the garage sale."*

*iPod vs. a VST Firewire Drive*

lous packaging—we certainly did as did Brian Nakamoto whose comments we carried Saturday. The iPod comes in a 6" cube. Here are photos by Chris Neuman—note the ad in the right side bar for a leather iPod sleeve with belt clip.

The iPod comes with ear bud head phones, little pads/covers for the ear buds, an AC adapter and a special FireWire cable that the iPod and only the iPod must use. The FireWire cable is used to connect the iPod to a Mac as well as to the AC adapter. The AC prong assembly snaps off the AC adapter so an extension cord can be attached but one was not included with the iPod. We are sure they are available at Radio Shack or other electronic components store. The 10-hour rechargeable lithium polymer battery is internal and the iPod can not be opened by any obvious means to change it or anything else. Our iPod came about 25 per cent charged.

A folded Getting Started sheet, license and warranty sheets and a CD complete the package. There is no manual but iTunes 2 has iPod Help files and there are a slew of iPod articles in Apple's Knowledge Base— just search "iPod". The CD has iTunes 2 for OS X and Mac OS 9.2.1 and a PDF info file but no software

updater/restorer like the one Apple posted and then pulled.

**- Setting It Up:** We connected our iPod to our TiBook running Mac OS X 10.1 and the previously installed iTunes 2.0.1 launched automatically. It took just over 35 seconds to download our library of 52 MP3 files, some 212 MB. The battery began recharging when we plugged it in.

iTunes 2 serves as the iPod control panel. It shows how full the iPod's 5 GB disk is, has iPod Help in the Help Menu and has a button to open the iPod's preference panel. From iTunes 2.0 we opened the iPod's preference panel and checked "Enable FireWire disk use" to allow it to act as a FireWire hard drive. As nice a music player as the iPod is, the hard disk feature is what sold us. We'll come back to this.

We worked for quite some time to fit the pads/covers on the ear buds since they hurt our ears without the covers. It was no easy task but we finally succeeded in stretching the covers over the buds without ripping them. With the covers, the buds were comfortable for several hours but we have a set of folding iCool head phones that
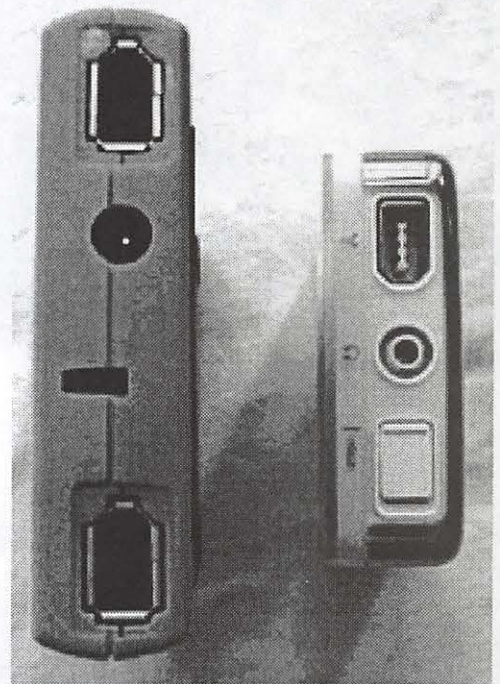


*The iPod only has one Firewire port*

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work super with the iPod.

Finally, we learned the iPod's controls. Fortunately, this was the easy part. Press the "Play" part of the control ring to turn it on when disconnected from the FireWire cable, press the "Menu" part of the control ring to get the menu and to go back through menus, spin the wheel to scroll up and down the menu and press the button to select an item or to move forward through the menus. The left and right parts of the control ring move one forward and back through a song. Once a song is playing, the wheel is spun to adjust the volume and the "Hold" switch on the top next to the audio jack (see photo at left) is slid to lock in the settings. We couldn't figure out how to turn the iPod off so we consulted the Help menu—hold down "Play" for a few seconds. We set the backlight to come on for 2

seconds when using the controls.

- **Music Player Use:** We listened to our whole 52-song collection for 2-3 hours while working and walking around. The iPod didn't skip a beat and the sound was as good as a CD using either the ear buds or the iCool head phones. The battery lost one segment of four on the indicator which supports Apple's contention of a 10-hour battery. The iPod is a fine music player.

- **Hard Drive Use:** We were primarily attracted to the iPod because it combines a tiny FireWire 5 GB hard drive the music capability in a package much smaller and lighter than our 4 GB VST slim drive that we carry for a back up when traveling—see photo above and at right. With the FireWire hard disk feature enabled, the iPod mounts on the desktop with its own icon just like any other FireWire drive when connected to a Mac with



*Garage Sale—"For many it was EZ sales."*

"Finally, we learned the iPod's controls. Fortunately, this was the easy part. Press the 'Play' part of the control ring to turn it on when disconnected from the FireWire cable, press the 'Menu' part of the control ring to get the menu and to go back through menus, spin the wheel to scroll up and down the menu and press the button to select an item or to move forward through the menus."

the FireWire cable. The iPod has only one FireWire port (see photo above left) so it must be the only device connected or the last one in a daisy chain. One must remember to unmount it before disconnecting it from a computer. Unmounting is accomplished by dragging its icon to the eject icon in Mac OS X (or trash in Mac OS 9.2.1) or using the eject button on iTunes 2's interface at lower right.

Will the iPod boot a Mac? We installed Mac OS X 10.0.3 on it from a CD and updated to Mac OS X 10.1 with its CD. The iPod booted our TiBook (Rev.A) and our G4 Cube, both as the only device and daisy chained off our VST drive. We encountered no problems in using the iPod as our boot drive over several hours of use, including downloading and installing the three recent 10.1 updates and installing applications.

- **Summary:** We think the iPod is a superb music player and a terrific tiny, bus-powered FireWire hard drive. At $399 it seems a bit rich if viewed as simply a music player, even if it is the best on the market, but that is the price for the iPod's drive alone. ■

*Write for the journal. We need your help to fill these pages with pertinent information for fellow members.*

# Graphisoft's ArchiCAD & Abvent's Zoom GDL
## "Perfect 3D Modeling Partners: ArchiCAD and Zoom GDL"

by Paul "Blue Strength" Gerstenbluth
(ArieFound@aol.com) RIAG Member

ARCHICAD embraces the new CAD (Computer-Aided Design) standards. Graphisoft's ArchiCAD is the primary provider of software for the building construction industry. Graphisoft has been devel-



oping design solutions for almost 20 years. Buildings have been designed and constructed based on ArchiCAD's tested and proven method.
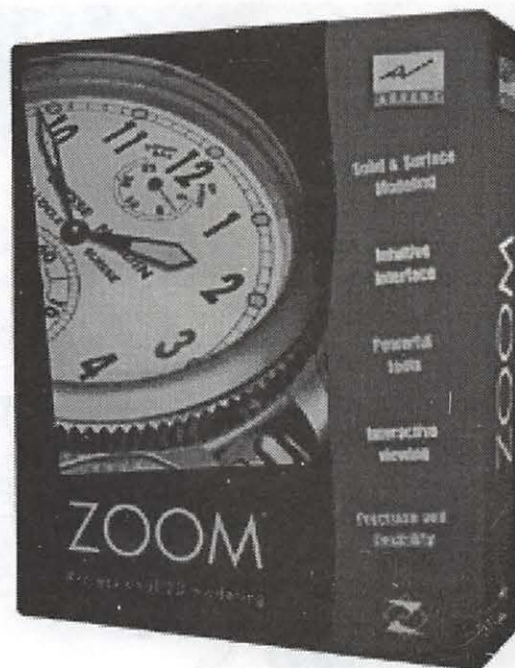
Graphisoft's ArchiCAD is simply the easiest way

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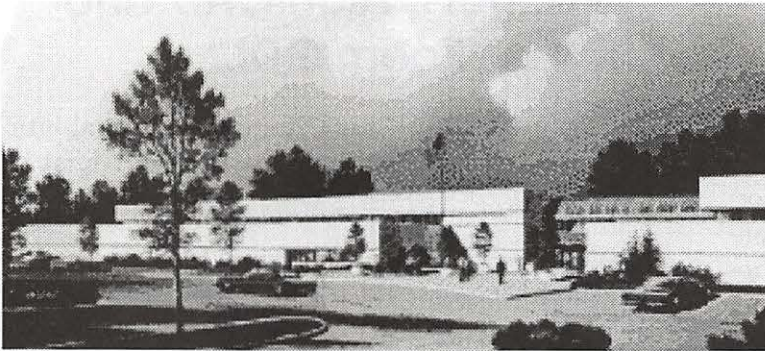






for architects and designers to embrace the new CAD standards. The key element to ArchiCAD's success is its authoring tool - "the Virtual Building."

Create rather than draw. Build rather than draft. ArchiCAD's Virtual Building elevates the building in three dimensions. You can view it in 3D; then extract 2D plans, sections, elevations and factual data about the building.

### Zoom GDL Team Partner

Zoom GDL is the perfect 3D modeling partner for ArchiCAD.

Abvent's Zoom GDL is multi-platform software for 3D modeling. Zoom is the master in the art of creation and modeling. Zoom simplifies your tasks by providing easy, intuitive tools from the simplest design to the most complex three-dimensional model.

### Zoom GDL Means Precision and Reliability

Zoom communicates directly by the standard file formats: DXF 14 / DWG 14, RIB, 3DStudio and QuickDraw3D. Zoom's standard library includes 350 parametric objects. You can change duplicate and use them to create more complex objects.

Zoom GDL offers 3D rotate, revolve, sweep/extrude along a path, and slices. These tools are needed by designers to make detailed custom arches, railings, moldings, furniture, and ornament. Zoom GDL includes Boolean operations (subtract, union, intersection of solids).

### Pro Reaction

ArchiCAD new design tools make adding complex elements faster and easier. The Virtual Building data is richer. ArchiCAD's leading edge intelligent object offers automatic documentation and instant visualization.

Abvent's Zoom GDL has a rich set of tools that allow you to easily position, displace and illuminate your objects in any viewing angle. Zoom GDL measuring tools guarantee clockwork precision and accurate creation of your objects.

## Con Reaction

ArchiCAD retails for $4,000. ArchiCAD price remains standard for high-end CAD programs. The USB ArchiCAD Keyplug hardware must be plugged directly into your Macintosh's USB port in order for the CAD program to work.

Zoom GDL users must study the Zoom Tutorial manual in order to learn the nuances of the Zoom program. You have to use the mouse for quitting without saving your work by clicking on [No] or [Cancel] buttons instead of using keyboard command keys.

## Final Notes

Graphisoft's ArchiCAD is simply the easiest way for architects and designers to embrace the new CAD standards. ArchiCAD 3D model based solutions allow architects and designers to create rather than draw, build rather than draft.

Graphisoft is clearly the leader moving from 2D CADD to 3D intelligent architectural objects. ZOOM excels in all the sectors that use 3D objects, especially in those that demand precision and reliability. ArchiCAD users looking for more flexibility than they have in ArchiCAD's internal modeling will find that Zoom has a direct translator that also retain lights, materials and textures.

## ArchiCAD 7.0 Student Version

ICS is an Authorized Educational reseller for Graphisoft's ArchiCAD 7.0 Student subscriptions. They are available for both MAC and WIN to all students or faculty with a current student ID. Subscriptions are available in 6-month versions for $99 and 12 month version for $150. Please contact Valerie Mathes at 617-576-8778 for more information.

The ArchiCAD 7.0 Step by Step is a book Demo CD combo providing an overview of concepts tools and building creation techniques in ArchiCAD. Sale price: $30.00 US.

**System Requirements:**
*   Graphisoft's ArchiCAD Software - System software 8.6 to 9.1. The CarbonLib system extension provided on the ArchiCAD 7.0 CD-ROM. QuickTime 4.0 or greater.
*   Required Hardware: * Any Power Macintosh computer.
*   Memory and Disk Space: * 64-MB configuration as a minimum, 128 MB or more recommended. About 200 MB free disk space is required for a full

installation of ArchiCAD 7.0. Free hard disk space is required according to model complexity (100 MB as a minimum, over 200 MB recommended for complex 3D visualization).
*   Display: * Any Macintosh compatible 17" or larger display (19-23" monitors recommended). The required minimum resolution is 1024 by 768 pixels.

**Graphisoft's ArchiCAD** Retails: $4,000 US Graphisoft USA. 224 Mississipi St. San Francisco CA 94107 Phone: 415-703-9777 E-mail: info@graphisoft.com Site: www.graphisoft.com

**Abvent's Zoom GDL** Mac OS 8.1, 64 MB (128 MB recommended), 200 MB free disk space for a full program installation, QuickTime(tm) 3.0, 24- bit Video Card recommended, CD- ROM drive. Abvent's Zoom GDL Retails: $495 US Abvent North America 360, rue Notre-Dame Ouest Bureau 402 -Montreal QC H2Y 1T9 - Canada Phone: 1-800-452-9241 E-mail: sales@abvent.com Site: www.abvent.com ∎

*Paul Gerstenbluth is President of the ARIE Foundation. The ARIE Foundation's mission is to provide VA hospitalized patients with hobby materials and Apple Powerbooks that helps in their stay and recovery.*

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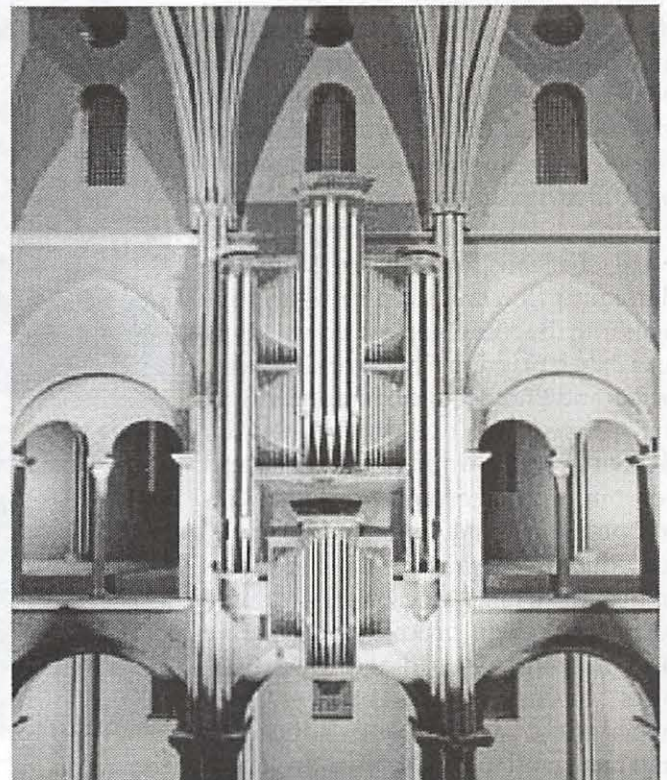
# The Arts and Crafts Computer: Using Your Computer as an Artist's Tool

Reviewed by Elsa Travisano,
Macintosh User Group of Oneonta,
NY - MUG ONE

Author: Janet Ashford.
143 pp. Peachpit Press, 2001. $34.99.

IN THE ARTS and Crafts Computer: Using Your Computer as an Artist's Tool, author Janet Ashford shows how the digital tools for creating and printing graphics can be combined with the traditional tools and practices of art and paper crafts. The result is sheer delight - a book that is a treasure trove of inspiration, guidance and practical instruction for "creating beautiful graphics and artful objects for your home, school and work." Ashford begins with a succinct and information-packed overview of digital tools, including choosing a computer and software (she leans towards the Mac), understanding resolution, bringing images into the computer and using inkjet and laser printers. In "Working with Scans and Photos" she covers scanning art, photos and real objects, digital drawing and painting, altering and combining images and working with old photos. "Using Type and Design" introduces typography and the basics of graphic design, and offers a simple four-step design process and creative design techniques. "Gathering Art Supplies" discusses paints, brushes, inks, pencils and papers, using adhesives, and basic craft tools. The final two chap-

ters, "Making Cards and Small Books" and "Crafting Gifts and Decorations", pull it all together with projects for greeting cards, envelopes, bookmarks, artist books, coloring books and decorations, and a wide range of gifts from tote bags and coasters to game boards and labels for bottles and tins. Filled to overflowing with color illustrations, templates and photographs of finished projects, the book is a visual feast. Instructions are brief but clear, and the list of resources - books, magazines, hardware and software, art and computer supplies and organizations - is invaluable. This book is aimed at three audiences: computer users who want to get into (or return to) crafting, crafters who want to
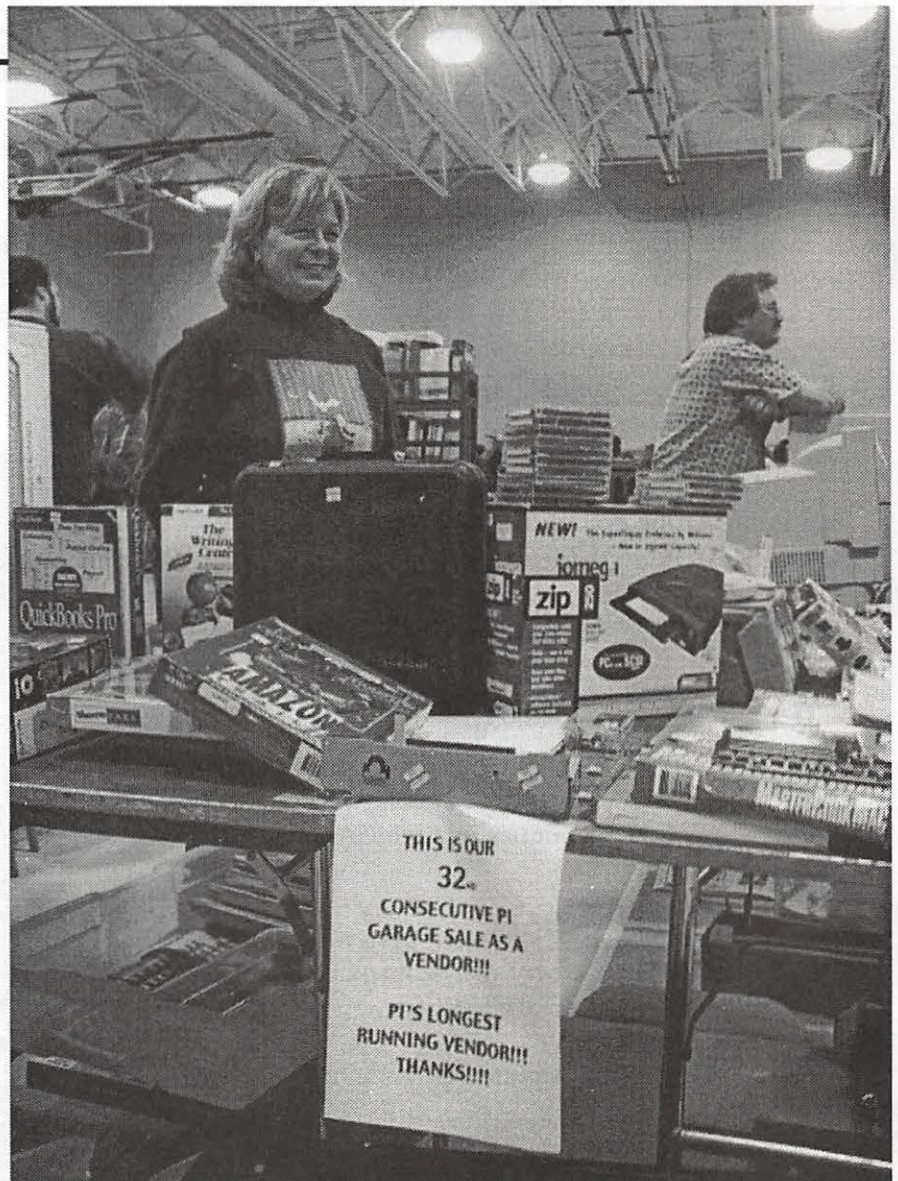


*Garage Sale—"32 garage sales full of smiles."*

THIS IS OUR
32.
CONSECUTIVE PI
GARAGE SALE AS A
VENDOR!!!

PI'S LONGEST
RUNNING VENDOR!!!
THANKS!!!!

learn more about using computers, and teachers, students and parents who want to know more about both. I'd add a fourth audience: anyone who wants to explore new and joyful ways to be creative with a computer. Most highly recommended. ■

*Garage Sale—"Lou kept fixing the same Mac all day."*

# The Little Mac Book, 7th edition

Reviewed by Elsa Travisano
Macintosh User Group of Oneonta, NY

Author: Robin Williams.
447 pp. Peachpit Press, 2001. $19.99.

THIS WONDERFUL book has been guiding and reassuring Macintosh beginners for the past 12 years. With over one million copies in print in 13 languages, The Little Mac Book, is quite simply, the best companion in print for beginning Macintosh users. It also holds a wealth of information of benefit to intermediate users, especially those upgrading from older operating systems. Author Robin Williams takes the reader from the basics of turning on the computer to using the internet and solving problems. Her clear, jargon-free prose, gentle humor and conversational tone make learning a pleasure.

Williams suggests that brand new users start with the brief tutorial, which teaches just enough to get comfortable, then come back and read the rest of the book after spending a couple of weeks using their Macs. This way the tips and tricks make more sense, and new users don't get swamped with too much information to digest. The text focuses on OS 9.1, but covers operating systems starting with OS 8. The latest operating system, OS X, is not covered - Williams is saving that topic for The Little Mac OS X Book, due in December. The book is simply illustrated with black and white screen shots and with whimsical

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> "With over one million copies in print in 13 languages, The Little Mac Book, is quite simply, the best companion in print for beginning Macintosh users. It also holds a wealth of information for intermediate users . . ."

drawings that help clarify concepts like RAM (a desk) versus a hard drive (a file cabinet). Robin Williams has written more than a dozen top-notch Mac books, including The Non-Designer9s Web Book and The Little iMac Book. The Little Mac Book shares some information in common with The Little iMac Book but it treats topics in greater detail and covers all Mac models, not just iMacs. Most highly recommended. ∎

*Garage Sale—"So many hard drives, so little time to fill them."*

# Wanted: New Blood

There are some Pi members who have been with the organization for nearly a quarter century. And there are some Pi leaders who have been leading the organization for most of their adult lives.

These leaders want to turn the controls of the Pi over to a new generation, or two. Just as they moved from Apple IIs to Macs, Power Macs, Power Mac G4s and iPods, they'd like to see the Pi move on, too.

Who will lead us forward into this new era? You can. Just nominate yourself or another Pi member to be on the Board of Directors for the 2002-2003 term. Nominations are due no later than Feb. 23, 2002. E-mail nominations to: **secretary@wap.org**, or mail them to:

**Nominations
c/o Secretary
Washington Apple Pi
12022 Parklawn Drive
Rockville, MD 20852**

**Positions available:**
President
Vice President Programs
Vice President Publicity
Vice President Membership
Vice President Volunteer Services
Secretary
Treasurer
Director (8 positions)

**WASHINGTON APPLE PI**

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## Adventures in Babysitting
*(continued from page 43)*

'p0lywog' tells me. But I can't shake this feeling that it's not quite right. Maybe it's because I know young kids- 14 year olds- and they're doing kernel programming. Maybe it's what I am over-hearing in this crowd. Wow! A fellow thinks he's cool because he 'h4x0red' someone's AOL account- and another would-be Robert T. Morris set up a local college NT lab to crash due to a denial of service- but alas he did not write the DoS that he used, he simply downloaded it. Is this the school for budding computer masters- or is it the Juvenile Delinquent Hall?

But they're all very pro-Linux. And that's good, I suppose, unless someone were to look at them and typecast all Linux enthusiasts. Here Linus Torvalds is a God- but interestingly enough, that's about the only person they know. Admiral Grace Hopper? Nope. Charles Babbage and Ada Lovelace I didn't bother asking about. How about Ken Thompson? You love Linux, so you must respect Unix? Nope. Dennis Ritchie? I mean, you all can at least program in C, right? Nope. Wozniak? Jesus, you've got to know Woz; there's a damned highway named after him in San Jose! Might have heard of him. There's a Navy ship named after Grace Hopper, but that's understandably a little more obscure. I spoke the names of these patron saints of all that is the technical world- and the more common ones, as well. Vint Cerf, I could see maybe they would not know. But, not to know Ritchie and Thompson? How many Geneticists would not know Watson and Crick? Or Charles Darwin?

I departed that cavernous old station quickly. Not only had these kids no clue about anything beyond downloading exploits, but they looked at me like a crazy old man when I was struck with disbelief that they did not know any computer people that hadn't a trademark made of their name. For a great while after that night I really wondered what these people thought they were doing. They weren't computer people. They weren't hackers or crackers. They're just misbehaved anti-social children who feel an ego kick from executing someone else's code to attack machines. It's not impressive, it's not anything.

"I spoke the names of these patron saints of all that is the technical world- and the more common ones, as well. Vint Cerf, I could see maybe they would not know. But, not to know Ritchie and Thompson? How many Geneticists would not know Watson and Crick? Or Charles Darwin?"

That was in one of the single snowy episodes of last winter. Then this morning I read a quote that put it all into perspective:

"I have watched kids testifying before Congress. It is clear that they are completely unaware of the seriousness of their acts. There is obviously a cultural gap. The act of breaking into a computer system has to have the same social stigma as breaking into a neighbor's house. It should not matter that the neighbor's door is unlocked. The press must learn that misguided use of a computer is no more amazing than drunk driving of an automobile."

-Ken Thompson

Ken Thompson has commanded my respect since I was a boy, and he commands it again by putting this all down so eloquently. Read this, would-be crackers, and script kiddies! This man speaks the truth! But, then again, it's Ken Thompson- and you probably still don't know who that is... ∎

# Pi Fillings—The CD Version 9

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Minolta
Olympus
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### TCS Software

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TCS Essentials 1.0.1
TCS Explorer (11/1/2001)

■ Apple Updates contains the revisions that Apple has released to give you greater functionality and stability in your Macintosh.

■ Applications Updates is a single source for all the major applications updaters released to

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date such as Microsoft, Norton, Palm/Hand-spring, Quicken and AppleWorks, etcetra.

■ Driver Updates is awash in the latest for your adaptors, cameras, input devices, printers, scanners, and storage devices;

■ Essential Applications contains the current versions of the most requested general purpose utilities. There is even a collection of not-so-essential stuff as well.

■ Oops is where you go for help when the gemlins get you or you let them get to you.

■ Internet Applications, Utilities, and Fun Stuff: Internet Applications contains the current versions of general purpose browsers, specialty readers, and utilities you need to actually use the items you bring home from a day surfing. In addition, there is a folder of web-based ap-

plications which access some of the services and features available via the web.

■ Fun Diversions contains a few distrations to take your mind off the work involved in installing and using all of this stuff.

■ For New Members is a sampling of the many applications that are available to make your computer experience more enjoyable. If we are new to you, please take a moment to read the file About Washington Apple Pi and visit the New Member's Sampler folder.

■ Get Smart is your chance to learn more about your computer from the experts. Among the topics covered are upgrades, servicing, and networking Macs.

*PLEASE NOTE: The functionality found in "Start Here" is not available under Mac OS X.*

# MacWorld New York City 2001 One-Day Bus Trip July 18, 2002

MacWorld New York will be held
July 16-19, 2002. Join Washington
Apple Pi for this **Fourth Annual Bus Trip**; it
will *probably* be on Thursday, July 18th.
Start making plans now!

# Macintosh Tutorials

## Note Tutorial Changes!!

*Tutorials are no longer being scheduled months in advance*

Tutorials will no longer be pre-scheduled on the calendar. You need to let the office know what tutorials you are interested in taking by either e-mailing the office at <office@wap.org> or phoning the office at 301-984-0300 during normal business hours (Monday-Wednesday-Friday 10 am till 6 pm). *Once enough students have shown interest in taking a tutorial, the tutorial will then be scheduled.*

When informing the office of your interest in a tutorial please be as specific as you can. Your name, e-mail address, daytime and evening phone, the name of the tutorial that you would like take, along with the times that you could take the tutorial is the necessary information the office will need in order to be able to schedule and contact you about a tutorial.

*Evening Classes Are Now Available*

Any number of people have expressed an interest in having more classes in the evening. Both John Barnes and Jim Ritz have been kind enough to offer to teach evening secessions of their classes.

On the Road with Your Mac
  Microsoft Word for Office 2001
Spreadsheet - Why Do I need to Use One?
  Microsoft Excel for Office 2001
Brush Up Your Mac Skills
  Microsoft PowerPoint
Exploring AppleWorks
  E-mail with Netscape Communicator
Ride the Internet Wave
  E-mail with Microsoft Outlook Express
Web Pages with Apple's iTools
  E-mail with America Online
The Mac—Digging a Little Deeper

Using Shareware and Freeware that no Mac should be Without
Beginning AppleScript - Teaching your Mac to "Stay" and "Sit"

Intermediate AppleScript - Teaching your Mac to Fetch the Newspaper

*Teachers Key*
—John Barnes teaches on Mondays, Tuesdays, Wednesdays, Thursdays, and Fridays either in the Morning or Afternoon AND Monday, Wednesday, Thursday and Friday Evenings
—Mahmoud El-Darwish teaches only in the evenings
—Pat Fauquet teachers on Mondays, Wednesdays, and Fridays either in the Morning or Afternoon.
—**Blake Lange** teaches only in the evenings
—**Jim Ritz** teaches on Tuesdays or Thursday either in the Morning or Afternoon AND Wednesday and Thursday Evenings
—**Paul Schlosser** teaches only in the Evenings
—**Barrett Thomson** teaches only in the Evenings

*Price Key for Single Session 3 hour Tutorials*
**(G)** General Level: Standard Members: $35.00, Associate Members and Non-Members: $50.00
**(M)** Middle Level: Standard Members: $50.00, Associate Members and Non-Members: $75.00
**(H)** Higher Level: Standard Members: $75.00, Associate Members and Non-Members: $125.00
** Multiple Session classes are double or triple the fees depending on the number of sessions.

## JUST NEAT

**Lets Burn Some CD's - (M)**
Learn the finer points of making music, data and video CDs in this three hour class. Learn all about Roxio Toast and the Apple Disc Burner software. Learn how prepare data, optimize files and make labels too.
**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills.
**Number of Sessions:** One
**Price:** Standard Members: $50.00, Associate Members: $75.00, Non-Members: $75.00
**Instructor:** Pat Fauquet
**Scheduling:** M-W-F either Morning or Afternoon

**Lets Go Wireless - Network Your Macs - (M)**
Do you dream of surfing the web without wires from your lawn chair, printing to that printer downstairs without plugging into it, sharing one internet account on all your computers? That's called networking! In this three hour class we will cut through the technobabble, show you examples of hardware, cables and software that make all your computers work to-

gether and share resources.
**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills
**Number of Sessions:** One
**Price:** Standard Members: $50.00, Associate Members: $75.00, Non-Members: $75.00.
**Instructor:** Pat Fauquet
**Scheduling:** M-W-F either Morning or Afternoon

### My Crafty Mac - (G)

Computers and printers are great for more than letters, web surfing and e-mail! Come spend the day with the Washington Apple Pi folks and let's do a few projects. Our crafting days will be held once each month and Pat promises to have ideas and techniques to get your creative energy flowing. Each month a variety of new materials, software and media will be available for your use in making items to take home for decorating and gifts. Below is a schedule of coming craft days:
September—Back to School and Halloween
October—Fall and Thanksgiving
November—Christmas and Hanukkah
December—Holiday Gifts and Calendars
January—President's Day, Valentine's Day, Martin Luther King Day
February—Scrapbooking, St. Patrick's Day
March—Easter, Passover, Spring
April —Graduation and Patriotic Projects
May—Summer Fun
There will be a $5.00 material fee in addition to the class fee for each session. Bring money and we will order in from one of the area restaurants or bring a sack lunch.
**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills
**Number of Sessions:** Full Day
**Price:** Standard Members: -Standard Members: $70.00, Associate Members: $100.00, Non-Members: $100.00
**Instructor:** Pat Fauquet
**Scheduling:** M-W-F Full Day

### On the Road with Your Mac - (G)

The recent introduction of highly portable, highly capable, and economical laptop computers makes it more of a pleasure than ever before to enjoy the company of your favorite computer when traveling. This course discusses the things one needs to think about before packing the computer to go to some exotic (or not so exotic) destination. Electricity supplies, modem and IP connections, Internet Cafes, file backup, multimedia adapters for use with digital still and video cameras, and physical security are some of the issues that

will be discussed.
**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills
**Sessions:** 1
**Price:** Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
**Instructor:** John Barnes
**Scheduling:** M-T-W-TR-F either Morning or Afternoon AND Evenings

### Have iBook (or PowerBook), Will Travel - (G)

There are a lot of things to think about before you take your favorite "toy" on the road—power, Internet connections, file backups, critical software, adapters, cases and computer security are just a few. Apple's Location Manager will also make trips easier. Come learn how to make your trip a "computing success."
**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills
**Number of Sessions:** One
**Price:** Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
**Instructor:** Pat Fauquet
**Scheduling:** M-W-F either Morning or Afternoon

# NEW USERS SET

### Mouse Mousse - (Intro to New User Set) - (G)

Your new pet needs care and training. This two hour class with one hour lab session will teach you how to tame the little beast! Tricks such as clicking, double clicking, pointing and dragging will be taught along with hints for care and feeding. If you own an iBook and would like to use that during the class, please bring it to class with you. This class may be retaken for free by members if further training is needed.
**Prerequisite:** None.
**Number of Sessions:** One (2 hours of class time and 1 hour of lab time)
**Price:** Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00
**Instructor:** Pat Fauquet
**Note:** Since most members can use the mouse effectively, this class is not required before taking Write It! - Save It! - Print It! and is only run when the office has enough students to schedule a class.

### Write It!- Save It! - Print It! - (Part 1 of 4 Part New User Set)- (G)

This introductory class will focus on using AppleWorks to write, print, and save your first com-

puter documents. Write It! will include elementary text formatting skills. Save It! will help you learn to save documents in a central location and then find them again. Print It! will help you set up your printer, preview your document, make choices about color, and paper quality.
**Prerequisite:** None.
**Number of Sessions:** One (2 hours of class time and 1 hour of lab time)
**Price:** Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00
**Instructor:** Pat Fauquet
**Scheduling:** M-W-F either Morning or Afternoon

**Finding Your Way Around the Finder - (Part 2 of 4 Part New User Set)- (G)**
Your computer desktop fills with windows and icons quickly! Learn the secrets of the Finder to deal with them!
**Prerequisite:** None.
**Number of Sessions:** One (2 hours of class time and 1 hour of lab time)
**Price:** Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00
**Instructor:** Pat Fauquet
**Scheduling:** M-W-F either Morning or Afternoon

**Surfing 101 - (Part 3 of 4 Part New User Set)- (G)**
Learn how to catch your first Internet wave! This class will give an introduction to the browser window, show you some great Internet sites, teach you how to make bookmarks to find your way back and send your first e-mail messages.
**Prerequisite:** None.
**Number of Sessions:** One (2

# Some Specifics

**Who**—Standard members are those who have paid the standard membership dues and includes all family members living within the household of a standard member. Associate members are those who have only paid the associate membership dues.

**What**—The tutorial program of Washington Apple Pi is hands-on training for our members in the use of Macintosh computers. The tutorial room is furnished with computers so that each student has the use of a computer during class.

**When**—Classes are no longer scheduled months in advance. You need to contact the office via snail mail, email or by phone to tell the office what classes you are interested in taking and what times you are available to take the classes.

**Where**—Unless otherwise stated, all tutorials sponsored by Washington Apple Pi are given at the office located at 12022 Parklawn Drive in Rockville, Maryland. A map to the office may be found on the web site at http://www.wap.org/info/about/officemap.html.

**How**—After enough students have stated their interest in taking a specific class the interested students will be contacted and the class will be scheduled. If you would like to inquire about the current level of interest for a specific class please either call the office during business hours or send email with the classes you wish to know about along with a daytime phone number. The office will get back to you either by email or by telephone.

**Fees**—Class fees vary due to the level of the class. Please see the specific class description for the fee for that class. Pre-registration and Pre-Payment must be made to hold a seat.

**Class Size**—Class size is limited to 6 students per class.

**Instructor Cancellation**—If a class is canceled by the instructor, all students will be notified of the cancellation. Please check your home answering machine and email if you have not given a work number for notification.

**Student Cancellation**—A student cancellation must be received 72 hours prior to the scheduled class time. Student Cancellations may only be made via telephone during Washington Apple Pi's business hours or via email to the email address of office@wap.org. The office does not have an answering machine - only an announcement machine.

**Office Information**

Washington Apple Pi
12022 Parklawn Drive
Rockville, MD 208522
www.wap.org
email: office@wap.org
Office Hours:
Monday - Wednesday - Friday (10 am - 6 pm)

hours of class time and 1 hour of lab time)
**Price:** Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00
**Instructor:** Pat Fauquet
**Scheduling:** M-W-F either Morning or Afternoon

**Simplify Your Computer Life - (Part 4 of 4 Part New User Set)- (G)**

Are you tired of having to open so many folders to get to AppleWorks or the Internet? Do you save things only to lose them? Can you throw something away when the trash can is covered? This class will teach you how to make your computer easier to use!
**Prerequisite:** None.
**Number of Sessions:** One (2 hours of class time and 1 hour of lab time)
**Price:** Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00
**Instructor:** Pat Fauquet
**Scheduling:** M-W-F either Morning or Afternoon

## UNDERSTANDING THE MAC

### Brush Up Your Mac Skills- (G)

This class is meant for the new user as well as the user who has just upgraded to a new computer and wants to learn more about the basic operation of the Macintosh. This class is also recommended for Macintosh owners who are new to Mac OS 8.0 and above or those who have never really learned all the things that the Mac OS has to offer to the computer user. In addition to start up, sleep and shutdown procedures, the student will learn how a computer works and common Macintosh terminology. The Finder and its basic operation will be fully covered. This discussion will include the menu bar, Apple menu and the Application Switcher. Students will learn how to access and use the built-in help application on the Macintosh. Error messages, dialog boxes, icons, folders, and view options will be discussed. You will learn the basics of word processing and text formatting. Copying, cutting, pasting, dragging and dropping will also be covered. Basic system and mouse maintenance will be included. The fundamentals of searching for files will also be covered.
**Prerequisite:** 4 part New Users Set or a good general understanding of the Mac OS.
**Number of Sessions:** Two.
**Price:** Standard Members: $70.00, Associate Members: $100.00, Non-Members: $100.00

**Instructor:** Jim Ritz
**Scheduling:** T-TR either Morning or Afternoon AND Evenings

### The Mac-—Digging a Little Deeper- (M)

The Mac—Digging a Little Deeper will follow up on the concepts taught in Brush Up Your Mac Skills. You will learn more advanced Macintosh skills and terminology including contextual menus and advanced Finder options, the custom installation of software and updating software applications. Students will learn about memory error messages and how to deal with them. Hard drive organization, archiving and backup strategies will be discussed. An introduction to managing system extensions and control panels will be covered along with virus protection, system enhancements and Macintosh "housekeeping" philosophies. Students will learn how to use Disk First Aid, how to deal with system crashes and what causes them. They will also learn to use Sherlock to find files on the computer, to find text phrases in saved data, and to find items on the Internet.
**Prerequisite:** Brush Up Your Mac Skills
**Number of Sessions:** Two
**Price:** Standard Members: $100.00, Associate Members: $150.00, Non-Members: $150.00
**Instructor:** Jim Ritz
**Scheduling:** T-TR either Morning or Afternoon AND Evenings

### Making your Mac Sing- (M)

Making your Mac Sing will follow up on the concepts taught in The Mac—Digging a Little Deeper. In this hands-on class students will learn how to back up the essential data and settings files, then how to install, update and upgrade system software. They will learn the difference between clean and dirty system installations and when to use them. They will learn how to remove installed software, manage system conflicts, and troubleshoot crashes. Software such as Norton Utilities, Tech Tool Pro, Conflict Catcher, Spring Cleaning, and Disk Warrior will be demonstrated and used to fix computer problems. Hard drive initialization, partitioning, defragmentation and optimization will be discussed and demonstrated. Students are encouraged to bring their Macs to use in class to actually troubleshoot and update their own computers. iMac owners should bring their computer, keyboard and mouse. All others should bring only their CPU and modem. If students own Zip drives or Super Drives they should also bring those to back up important data.

**Prerequisite:** The Mac—Digging a Little Deeper
**Number of Sessions:** Two
**Price:** Standard Members: $100.00 Associate Members: $150.00, Non-Members: $150.00
**Instructor:** Pat Fauquet
**Scheduling:** M-W-F either Morning or Afternoon

### Hanging Ten

Now that Apple's state-of-the-art operating system is pretty much ready for prime time, OS X is the place to be. With its outstanding stability, robust software, seamless multitasking, clean program development environment, and many other features, X is the way to go if your computer can support it. This class provides tips gathered from experienced OS X users and "hands on" experience with the new environment and applications that live within it. Learn the distinctions between Cocoa, Carbon, and Classic. Learn how to set up OS X and Classic on your own (qualifying) machine. Tour some of the new and upgraded applications.
**Prerequisite:** Digging Deeper
**Sessions:** 1
**Price:** Standard Members: $50.00, Associate Members: $75.00, Non-Members: $75.00.
**Handout Fee:** $5.00
**Instructor:** John Barnes
**Scheduling:** M-T-W-TR-F either Morning or Afternoon AND Evenings

### Using Shareware and Freeware that no Mac should be Without- (M)

What is shareware and freeware and why do you need to know about it? What are all the neat files and programs that make your Mac more user friendly? Learn how to find these files and software on the Internet, how download them, how to install and use them. How susceptible is the Mac to viruses, and how do you combat them? This one session class is for students who want to learn more about the various software resources such as graphic reader/converter software, fonts, plug-ins, Applescripts, and system resources.
**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills.
**Number of Sessions:** One
**Price:** Standard Members: $50.00, Associate Members: $75.00, Non-Members: $75.00
**Instructor:** Jim Ritz
**Scheduling:** T-TR either Morning or Afternoon AND Evenings

## WHY APPLEWORKS

### Exploring AppleWorks- (G)

Now that you can type a report or letter, learn more about margins, indents, tabs, dictionaries, sections and columns. Learn how to add graphics, tables, graphs and spreadsheets to your basic AppleWorks document. Learn how to use the templates and assistants included in the program.
**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills.
**Number of Sessions:** One
**Price:** Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00
**Instructor:** Jim Ritz
**Scheduling:** T-TR either Morning or Afternoon AND Evenings

### AppleWorks Can Do That?- (M)

In addition to word processing functions AppleWorks contains presentation, database and spreadsheet modules. Learn to use these tools for slideshows, mail merging, certificates, and labels in this three hour class.
**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills
**Number of Sessions:** One
**Price:** Standard Members: $50.00, Associate Members: $75.00, Non-Members: $75.00.
**Instructor:** Pat Fauquet
**Scheduling:** M-W-F either Morning or Afternoon

### AppleWorks and Newsletters- (M)

Learn how to use the newsletter assistant in AppleWorks to easily produce newsletters for a variety of audiences. In this class participants will produce a basic newsletter, then learn how to use the Mac OS stationery pad function to speed the production of future newsletters. Basics of graphic design, layout, typography, writing style and suggestions for economical reproduction will also be covered. This class is not an introduction to AppleWorks.
**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills. In addition Exploring AppleWorks class or a good working knowledge of another word processing application is suggested before attending this class.
**Number of Sessions:** One
**Price:** Standard Members: $50.00, Associate Members: $75.00, Non-Members: $75.00
**Instructor:** Pat Fauquet

Scheduling: M-W-F either Morning or Afternoon

## GENERAL GRAPHICS

### We Need a Picture Here- (M)

Calling all people who don't want to be graphic professionals, but who would like to be able to put Photos, Clip Art, Draw, Paint, Vector, and Bitmap into an e-mail, flyer or newsletter. In this three hour class students will be introduced the secrets of drawing and paint programs for the computer. They will learn how to use graphics from computer programs, clip art CDs and the Web to enhance their documents. They will learn how to re-size and re-color graphics that are "just about right" to make them "just right." Elementary retouching of photos will also be covered.

**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills.
**Number of Sessions:** One
**Price:** Standard Members: $50.00, Associate Members: $75.00, Non-Members: $75.00
**Instructor:** Pat Fauquet
**Scheduling:** M-W-F either Morning or Afternoon

### Fun with Your Scanner- (M)

Bring your scanner, its software, cables and power supply and explore what you can do with it. Bring a few pictures that you would like to fix, some printed material you would like to convert to text and bring a few small items you would like to have "pictures" of. We will have a "scanning" good time!

**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills.
**Number of Sessions:** One
**Price:** Standard Members: $50.00, Associate Members: $75.00, Non-Members: $75.00
**Instructor:** Pat Fauquet
**Scheduling:** M-W-F either Morning or Afternoon

## USING THE INTERNET

### Ride the Internet Wave- (G)

This three hour class, intended for users of all Internet browsers, will introduce you to the World Wide Web. Learn what the various buttons on the browser window do. Learn to customize the browser window to meet your visual needs. Learn how an Internet address works and how to deal with error messages that appear. You will learn how to use Sherlock, search engines, directories and metasearch sites to find the information you seek. Learn how to capture pictures and text from the Internet and how it print web pages. This class is appropriate for all users of the Internet including America Online customers. It is suggested that all participants enroll in one of the e-mail courses to complete their introduction to the Internet.

**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills.
**Number of Sessions:** One
**Price:** Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00
**Instructor:** Jim Ritz
**Scheduling:** T-TR either Morning or Afternoon AND Evenings

### E-mail with Netscape Communicator- (G)

Anyone can send and receive e-mail, but some would like to do more like attach and download files, send documents that anyone can read, import their Palm data into their address book or perhaps export their address book to their Palm. Some would like to know how archive e-mail, search it, and perhaps even dress it up. Are you one of those people? Come learn how to really use Netscape for e-mail!

**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills
**Number of Sessions:** One
**Price:** Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
**Instructor:** Jim Ritz
**Scheduling:** T-TR either Morning or Afternoon AND Evenings

### E-mail with Microsoft Outlook Express- (G)

Anyone can send and receive e-mail, but some would like to do more like attach and download files, send documents that anyone can read, import their Palm data into their address book or perhaps export their address book to their Palm. Some would like to know how archive e-mail, search it, and perhaps even dress it up. Are you one of those people? Come learn how to really use Outlook Express for e-mail!

**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills
**Number of Sessions:** One
**Price:** Standard Members: $35.00, Associate Members: $50.00, Non-Members: $50.00.
**Instructor:** Jim Ritz
**Scheduling:** T-TR either Morning or Afternoon AND Evenings

**E-mail with America Online- (G)**

Anyone can send and receive e-mail, but some would like to do more like attach and download files, send documents that anyone can read. Some would like to know how archive e-mail, search it, and perhaps even dress it up. Are you one of those people? Come learn how to really use AOL for e-mail!

**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills

**Number of Sessions:** One

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

**Instructor:** Jim Ritz

**Scheduling:** T-TR either Morning or Afternoon AND Evenings

## WEB PAGE CREATION AND DESIGN

**Web Pages with Apple's iTools- (G)**

Want a web page, but don't want to have to buy new software, learn HTML, learn about FTP, and find a page host? Let Apple do it for you! In this three hour class you can make a web page and publish it on the web! Use that page to show off family pictures or items you want to sell on eBay, post a family newsletter, put your resume online for all to see, post an invitation to a party or even make a place to share files with other people. The techniques used in this class require Mac OS 9 OR X if you plan to continue your pages at home.

Bring a few photos to scan and leave with your pages on the Web!

**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills

**Number of Sessions:** One

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

**Instructor:** Jim Ritz

**Scheduling:** T-TR either Morning or Afternoon AND Evenings

**Web Pages-The How To Dos- (M)**

When your web page grows to more than two pages, its time to get organized!

Learn how web pages differ from printed documents, what you can and can't control in web page design. Learn how to organize your files to make it easier to update your pages. Learn how to register a domain, upload pages to a web server and how to get people to visit your site. Learn about graphic types and when to use them. This class replaces Web Page Workshop and is the prerequisite for all other web page classes at Washington Apple Pi.

**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills.

**Number of Sessions:** One

**Price:** Standard Members: $50.00, Associate Members: $75.00, Non-Members: $75.00

**Instructor:** Pat Fauquet

**Scheduling:** M-W-F either Morning or Afternoon

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## Washington Apple Pi
## Tutorial Registration Form
**www.wap.org**

Washington Apple Pi
12022 Parklawn Drive
Rockville, MD 20852
301-984-0300  Office@wap.org

Name_____

Address_____

City/State/Zip_____

Phone (day)_____(Evening)_____

Member Number _____ Non-member_____

Email address _____

Times when your are available for classes_____

_____

Type of class wanted _____

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

Class #1 _____

Class #2 _____

Class #3 _____

Class #4 _____

Class #5 _____

Class #6 _____

Mail registration and payment to the above address.

## Making Web Pages with Free or Inexpensive Software- (M)

Learn how to make web pages, format the text, add pictures and link pages together. Learn about tables and how to and use them. Learn about the site management features of these programs and how to upload your pages to the web server.

**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills along with Web Pages-The How To Dos or the permission of the instructor.

**Number of Sessions:** Full Day

**Price:** Standard Members: $100.00, Associate Members: $150.00, Non-Members: $150.00.

**Instructor:** Pat Fauquet

**Scheduling:** M-W-F Full Day

*This class has a break for lunch. Please either bring your lunch or money for take out.

## Web Page Decoration- (M)

In this all-day workshop students will learn how to make and prepare backgrounds, headlines, clip art, buttons, rules, dividers and animation's for web pages. They will also learn how to construct graphic sets. Students will learn about the GIF, JPEG and PNG formats and when to use them. If you want to use these projects in an actual web page, please sign up for a web page class in addition to this class.

**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills along with Web Pages-The How To Dos or the permission of the instructor.

**Number of Sessions:** Full Day

**Price:** Standard Members: $100.00, Associate Members: $150.00, Non-Members: $150.00.

**Instructor:** Pat Fauquet

**Scheduling:** M-W-F Full Day

*This class has a break for lunch. Please either bring your lunch or money for take out.

## Adobe GoLive 1: Introduction- (H)

This class will cover the first three lessons in the Adobe GoLive Classroom in a Book. Students will learn to start a page, add and format text and pictures, use tables, and link pages together. They will learn about dynamic components, templates, and image maps. They will also learn elementary site management.

**Prerequisite:** Web Pages-The How To Dos OR Making Web Pages with Free or Inexpensive Software OR the permission of the instructor.

**Number of Sessions:** Full Day

**Price:** Standard Members: $150.00, Associate Members: $250.00, Non-Members: $250.00

**Book Price:** $10.00 to be paid with class registration.

**Instructor:** Pat Fauquet

**Scheduling:** M-W-F Full Day

*This class has a break for lunch. Please either bring your lunch or money for take out.

## Adobe GoLive 2:, Frames, Animation and Site Management- (H)

This class will cover lessons four, five and eight in the Adobe GoLive Classroom in a Book. Students will learn how to build a web page using frames. They will learn how to use rollovers and floating boxes to add interest to their web pages. They will also learn how to use the site management tools in Adobe GoLive to convert old site and update sites easily.

**Prerequisite:** Adobe GoLive 1: An Introduction OR the permission of the instructor.

**Number of Sessions:** Full Day

**Price:** Standard Members: $150.00, Associate Members: $250.00, Non-Members: $250.00

**Book Price:** same book as for Adobe Go Live 1.

**Instructor:** Pat Fauquet

**Scheduling:** M-W-F Full Day

*This class has a break for lunch. Please either bring your lunch or money for take out.

## Adobe GoLive 3: Editing QuickTime Content- (H)

Adobe GoLive has a great QuickTime editor built into the program. This class will cover its use in making and editing QuickTime movies. Instruction will also be given for how to add QuickTime VR scenes, panoramas, and objects to web pages

**Prerequisite:** Adobe GoLive 1: Introduction OR the permission of the instructor.

**Number of Sessions:** Full Day

**Price:** Standard Members: $150.00, Associate Members: $250.00, Non-Members: $250.00

**Book Price:** same book as for Adobe Go Live 1.

**Instructor:** Pat Fauquet

**Scheduling:** M-W-F Full Day

*This class has a break for lunch. Please either bring your lunch or money for take out.

# OFFICE AND HOME PRODUCTIVITY SOLUTIONS

## The Enterprise Mac (M)

Many mom and pop businesses, craft workers, one-person consultancies, or small offices use Macintosh computers to support their income-producing activi-

ties. This tutorial is designed to provide such users with a basic overview of Macintosh applications and hardware suitable for such business uses. The tutorial will also present security procedures and disaster recovery methods so that enterprise users will have access to their valuable data whenever and wherever they need it. The knowledge gained in this course will help save money on service calls and help users to build integrated IT strategies for their small businesses.

**Prerequisite:** Brush Up Your Mac Skills
**Sessions:** 1
**Price:** Standard Members: $50.00, Associate Members: $75.00, Non-Members: $75.00.
**Handout Fee:** $10.00
**Instructor:** John Barnes
**Scheduling:** M-T-W-TR-F either Morning or Afternoon AND Evenings

## Microsoft Word for Office 2001- (M)

This class will introduce the student to the fundamentals of the Microsoft Word software package. The course is designed for those with very limited or no previous knowledge of Word. Topics that will be covered include: reviewing the screen elements of a basic new Word document (the standard and formatting toolbars and the menu bar); setting default options such as spell checking and document editing choices, paragraph formatting (fonts, type styles, etc.); creating, editing, saving and deleting a simple Word document; using the on line help function; simple formatting using tabs and setting margins; creating a simple table; and reviewing predefined templates such as the letter template that are included in Word.

The classroom emphasis will be on Word 2001. Differences between Word 2001 and Word 98 may be discussed if students' needs warrant.
**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills
**Number of Sessions:** 1
**Textbook:** To Be Determined by Instructor
**Price:** Standard Members: $50.00, Associate Members: $100.00, Non-Members: $100.00.
**Instructor:** John Barnes
**Scheduling:** M-T-W-TR-F either Morning or Afternoon AND Evenings

## Microsoft Excel for Office 2001- (M)

This class will introduce the student to the fundamentals of the Microsoft Excel software package. The course is designed for those with limited or nonexist-

ent knowledge of spreadsheet software. Topics that will be covered include: an overview of spreadsheet applications, designing and creating a new worksheet, calculations; editing, saving and deleting a simple Excel document; using the on line help function; creating a simple table; adapting predefined templates, and data importing and exporting.
**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills and
Access to Microsoft Excel application on an office or home computer
**Number of Sessions:** One (2 hrs class time, 1 hr lab time)
**Textbook:** To Be Determined by Instructor
**Price:** Standard Members: $50.00, Associate Members: $100.00, Non-Members: $100.00.
**Instructor:** John Barnes
**Scheduling:** M-T-W-TR-F either Morning or Afternoon AND Evenings

## Microsoft PowerPoint- (M)

This class will introduce the student to the fundamentals of the Microsoft PowerPoint software package. The course is designed for those with very limited or no previous knowledge of presentation software. Topics that will be covered include: designing a presentation using the outline, slide viewer and slide show modes, the use of page masters (title and slide masters), importing pictures and charts. Transitions, timing, and control of presentations will also be covered. Design assistants and predefined themes will be discussed as aids to effective design. Preparation of transparencies,
notes, and handouts will also be discussed.
**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills and
Access to Microsoft PowerPoint Application on an office or home computer
**Number of Sessions:** One (2 hrs class time, 1 hr lab time)
**Textbook:** To Be Determined by Instructor
**Price:** Standard Members: $50.00, Associate Members: $100.00, Non-Members: $100.00.
**Instructor:** John Barnes
**Scheduling:** M-T-W-TR-F either Morning or Afternoon AND Evenings

## Spreadsheet - Why Do I need to Use One?- (M)

While optimizing the use of a Spreadsheet can make our work life less stressful and more productive, Spreadsheets aren't just for work anymore. Come learn the different parts of our lives that can be made more productive through the use of spreadsheets. From

learning the basic spreadsheet concepts, to setting up a spreadsheet, entering and editing numbers and words, entering basic formulas and make basic charts and graphs. Come find out how to sort data and how to print the whole spread sheet or only a portion of it. Class will show concepts that can be used in either the spreadsheet module of AppleWorks (ClarisWorks) or Excel. This class is not meant for persons who are intermediate or advanced users.

**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills.

**Number of Sessions:** One

**Price:** Standard Members: $50.00, Associate Members: $75.00, Non-Members: $75.00

**Instructor:** Jim Ritz

**Scheduling:** T-TR either Morning or Afternoon AND Evenings

### Introduction to FileMaker Pro- (M)

This course covers what a database is, database terms, how to plan a database, and create database fields and layouts. Searching, sorting, printing and editing information in a database will also be covered.

**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills.

**Number of Sessions:** One

**Price:** Standard Members: $50.00, Associate Members: $75.00, Non-Members: $75.00

**Instructor:** Pat Fauquet

**Scheduling:** M-W-F either Morning or Afternoon

### Advanced FileMaker Pro and Clinic- (M)

This class is for those who have some experience with FileMaker Pro and need to learn more for specific projects. Questions are welcome and students specific problems will be discussed. The class will be explanations with a strong questions and answer format. You should bring along on floppy/zip a sample of things you would like help.

**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills.

**Number of Sessions:** One

**Price:** Standard Members: $50.00, Associate Members: $75.00, Non-Members: $75.00

**Instructor:** Pat Fauquet

**Scheduling:** M-W-F either Morning or Afternoon

## CAMERAS AND VIDEO

### Digital Video Cameras and iMovie- (M)

Join with other Pi members as we explore the world of digital video cameras. Learn shooting, composition and lighting techniques. Learn how to upload footage to your computer, how to edit it, add music tracks from CDs, MP3s or midi files, how to add narration, still clips and special effects. The class will conclude with uploading the edited video to the camera or rendering. Bring your camera, music, video and still images you might like to include in your project

**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills

**Number of Sessions:** Full Day

**Price:** Standard Members: $100.00, Associate Members: $150.00, Non-Members: $150.00

**Instructor:** Pat Fauquet

**Scheduling:** M-W-F Full Day

*This class has a break for lunch. Please either bring your lunch or money for take out.

### Fun with Your Digital Camera- (M)

Bring your digital camera and accessories to class and learn how to use it. Learn about media types, batteries, card readers, flash units, accessory filters and lenses and tripods. Learn shooting, lighting and manipulation tips, how to print photos, how to attach them to e-mail, and how to put them on web pages. If you do not have a digital camera, come anyway and learn how to choose one. Several digital cameras will be available for student use during class.

**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills.

**Number of Sessions:** One

**Price:** Standard Members: $50.00, Associate Members: $75.00, Non-Members: $75.00

**Instructor:** Pat Fauquet

**Scheduling:** M-W-F either Morning or Afternoon

### Using Photo Elements to Improving Digital Photos and Scans- (M)

Now that you have scanned that photo, taken a picture with a digital camera, or had photo disks made, learn how to improve your photos using inexpensive programs like Adobe PhotoShop Elements and GraphicConverter. Learn to lighten, darken, crop, and combine pictures to make them ready for printing, emailing and putting them in web pages.

**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills.

**Number of Sessions:** One

**Price:** Standard Members: $50.00, Associate Members: $75.00, Non-Members: $75.00

**Instructor:** Pat Fauquet

**Scheduling:** M-W-F either Morning or Afternoon

**QuickTime VR—Making a Panorama- (H)**

They're showing up everywhere—tours of homes, museums, businesses and scenic spots. Learn how to shoot a panorama, how to stitch one together, and what software and equipment is needed. This class will include the use of freeware shareware and commercial software. Students will use a range of digital cameras to produce several panoramas that will be stitched into tour with nodes linking the panoramas. Pan heads and leveling devices will be used and discussed. Adding panoramas to web pages will complete the day.

**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills along with Web Pages-The How To Dos or the permission of the instructor.

**Number of Sessions:** Full Day

**Price:** Standard Members: $150.00, Associate Members: $250.00, Non-Members: $250.00

**Instructor:** Pat Fauquet

**Scheduling:** M-W-F Full Day

*This class has a break for lunch. Please either bring your lunch or money for take out.

**QuickTime VR—Making a Virtual Object— (H)**

Imagine being able to manipulate a picture of a three dimensional object! Rotate it, turn it, bring it closer. Learn to produce object movies that can be placed on web pages. This class will include the use of freeware shareware and commercial software. Students will use a range of digital cameras to produce several VR objects. Adding these object movies to a web page will complete the class. This is a three hour class. -suggest it is offered at higher price level.

**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills along with Web Pages-The How To Dos or the permission of the instructor.

**Number of Sessions:** Full Day

**Price:** Standard Members: $150.00, Associate Members: $250.00, Non-Members: $250.00

**Instructor:** Pat Fauquet

**Scheduling:** M-W-F Full Day

*This class has a break for lunch. Please either bring your lunch or money for take out.

**Beginner Final Cut Pro - (H)**

This three hour beginning Final Cut Pro class is the jump off point for people who would like to start using this powerful program for making videos. Topic to be covered are listed below.

Hardware and Software Setup: System/Memory settings; Camera/Deck/Monitor connections; Scratch Disk setup; Final Cut Pro preferences.

Final Cut Pro — The Interface: Browser; Viewer; Timeline; Toolbar.

Logging and Capturing: Setting the log bin; Transport controls; Ins and outs of timecode; Selected capture; Handles.

Editing: Trimming clips; Keyboard shortcuts; Transitions; Dynamic previewing and rendering.

Titles: Title and action safe areas; Drop shadows.

Filters and Effects: Applying.

Audio: Importing from audio CD.

Final Output: Print to Video vs. recording from Timeline; Exporting QuickTime file.

Special Instructions: Students should bring their Digital Video Camera, cables and software with them to class.

**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills.

**Number of Sessions:** One.

**Price:** Standard Members: $75.00, Associate Members: $125.00, Non-Members: $125.00

**Instructor:** Barrett Thomson

**Scheduling:** Evenings

## GRAPHIC DESIGN

**Fast Track to Dreamweaver (H)**

Fast Track to Dreamweaver is a 3-session course that teaches Intermediate Macintosh users to build websites the Macromedia way. Some of the skills you'll learn include:

Topics

· Basics of site architecture and HTML

· Working with Graphics

· Creating Links

· Elements of Page Design

· Creating Frames

· Fireworks and Dreamweaver combined

Objectives

Upon completion of this course, you should be able to:

· Use the fundamental features of Dreamweaver and the basic skills of adding text, graphics, and links to your page, along with instantly adding Flash files.

· Create simple tables, insert text or graphics, and moving or sizing the

box to get just the look you want.

**Fast Track to Dreamweaver (H) Sessions 1: Learning the Basics**

Organizing Your Site, Dreamweaver Basics, The Document Window, The Objects Panel, The Property

Inspector, Dockable Panels, Defining a Local Site, Specifying Preview Browsers, Saving Your File, Naming an HTML File, Giving Your Page a Title, Specifying a Background Color, Specifying the Default Font Color, Specifying Link Colors, Using a Background Graphic, Placing Text on a Page, Adding Text in Dreamweaver, Indenting Text, Making Lists, Ordered Lists, Unordered Lists, Definition Lists, Nested Lists, List Tips, Character Formatting, Positioning Text, Changing Font Properties, Changing the Font Face, Changing the Font Size, Changing the Font Color, Cleaning Up Word HTML, HTML Styles, Switching Document Views, Adding Horizontal Rules, Adding E-mail Links, Adding a Date Automatically.
**Prerequisite:** Digging Deeper and Experience using the World Wide Web
**Sessions:** 1
**Price:** Standard Members: $75.00, Associate Members: $125.00, Non-Members: $125.00.
**Instructor:** Mahmoud El-Darwish
**Scheduling:** Evenings

## Fast Track to Dreamweaver (H) Session 2: Working With Graphics

Placing Graphics on the Page, Wrapping Text Around Images, Modifying the Space and Adding a Border Around Images, Aligning Images and Text, Image Alignment Options, Adding Flash Objects.
**Prerequisite:** Digging Deeper and Experience using the World Wide Web
**Sessions:** 1
**Price:** Standard Members: $75.00, Associate Members: $125.00, Non-Members: $125.00.
**Instructor:** Mahmoud El-Darwish
**Scheduling:** Evenings

## Fast Track to Dreamweaver (H) Session 3: Creating Links

Creating Hypertext Links, Targeting a Link, Creating Image Maps, Linking to Named Anchors, Using Tables for Page Design.
**Prerequisite:** Digging Deeper and Experience using the World Wide Web
**Sessions:** 1
**Price:** Standard Members: $75.00, Associate Members: $125.00, Non-Members: $125.00.
**Instructor:** Mahmoud El-Darwish
**Scheduling:** Evenings

## Adobe Photoshop Part 1- (H)

Learn the basic fundamentals of Adobe Photoshop, the most widely used graphics program. Learn the proper way to configure the Photoshop preferences and how to use the tool, info, channel and color palettes. Also learn how to use each of Photoshop's tools, create new documents, define colors and manipulate text and images. Also covered will be the proper format to save your image in, and what compression will or won't do to your image.
**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills.
**Number of Sessions:** One
**Price:** Standard Members: $75.00, Associate Members: $125.00, Non-Members: $125.00
**Book Price:** $10.00 to be paid with class registration.
**Instructor:** Paul Schlosser
**Scheduling:** Evenings

## Adobe PhotoShop Part 2- (H)

Learn how to isolate different parts of an image or layers. Edit layers as discrete artwork with unlimited flexibility in composing and revising an image. Create more complex effects in your artwork using layer masks, clipping groups, and adjustment layers. This class includes both layer basics covered in the Photoshop tutorial and advanced layer techniques covered in the Classroom in a Book, Lesson 8.
**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills along with Adobe PhotoShop Part 1 or a knowledge of the topics covered in that class
**Number of Sessions:** One
**Price:** Standard Members: $75.00, Associate Members: $125.00, Non-Members: $125.00
**Book Price:** $10.00 to be paid with class registration.
**Instructor:** Blake Lange
**Scheduling:** Evenings

## Adobe InDesign 1- (H)

Work through a demonstration of Adobe InDesign providing an overview of the key features. Get to know the navigation features for using the drawing, layout, and editing capabilities. Learn the work area including the document window, the pasteboard, the toolbox, and the floating palettes. This class covers "A Quick Tour of Adobe InDesign" (the same as Chapter 1 in the User Guide) and "Lesson 1: Getting to Know the Work Area" from the Adobe Classroom in a Book.
**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills.
**Number of Sessions:** One
**Price:** Standard Members: $75.00, Associate Members: $125.00, Non-Members: $125.00

**Book Price:** $10.00 to be paid with class registration.
**Instructor:** Blake Lange
**Scheduling:** Evenings

## Adobe InDesign 2- (H)

Learn to use the tools for setting up pages to ensure a consistent page layout and to simplify your work. Learn how to set up master pages and use columns and guides. Work with frames to hold either text or graphics. Learn how InDesign gives you flexibility and control over your design. This class covers "Lesson 2: Setting Up Your Document and "Lesson 3: Working with Frames from the Adobe Classroom in a Book.
**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills along with Adobe InDesign 1 or a knowledge of the topics covered in that class.
**Number of Sessions:** One
**Price:** Standard Members: $75.00, Associate Members: $125.00, Non-Members: $125.00
**Book Price:** Same book as used with Adobe InDesign 1.
**Instructor:** Blake Lange
**Scheduling:** Evenings

## Adobe Illustrator: Mastering the Bezier Curve- (H)

Illustrator has become so feature laden that current tutorials are just overviews of the product; they do not present the fundamental workings of the program in depth. The Bezier curve, otherwise known as a vector graphic, is the primary building block of Illustrator (and many other drawing programs). Mastering its use will fundamentally change your view of the power of the program. The way the Bezier curve works, however, may seem alien at first with its points and vectors, an approach to illustrating many find counter-intuitive. This class will start with creating and editing the simplest lines and curves and build up to the creation of complex illustrations. By the end of the class you should feel comfortable editing any illustration based on the Bezier curve, for example, all clip art that has the eps extension in its file name. This class serves as both a good introduction to the program and as a help for the more advanced user to become adept in its use.
**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills.
**Number of Sessions:** One
**Price:** Standard Members: $75.00, Associate Members: $125.00, Non-Members: $125.00
**Book Price:** $10.00 to be paid with class registration.
**Instructor:** Blake Lange
**Scheduling:** Evenings

## Introduction to Quark XPress- (H)

Learn the basic fundamentals of Quark Xpress, the most widely used page layout program. Learn the proper way to configure the Xpress preferences and how to use the tool, measurement, color and documents palettes. You'll learn how to properly create new documents, define four-color process and spot colors, create master pages and manipulate text and graphic objects. Learn how to correctly use Xpress font and picture usage windows and how to configure the document for the laser printer or high-resolution imagesetter.
**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills.
**Number of Sessions:** One
**Price:** Standard Members: $75.00, Associate Members: $125.00, Non-Members: $125.00
**Instructor:** Paul Schlosser
**Scheduling:** Evenings

## Quark Xpress Clinic- (H)

This class is for those who have some experience with Quark Xpress and are interested in asking questions and having specific problems discussed. The class will be a question and answer format and you should bring along on floppy a sample of things for which you would like help. Prerequisite: Introduction to Quark XPress or a good working knowledge of QuarkXpress and its interface.
**Number of Sessions:** One
**Price:** Standard Members: $75.00, Associate Members: $125.00, Non-Members: $125.00
**Instructor:** Paul Schlosser
**Scheduling:** Evenings

## Introduction to PageMaker- (H)

Using the basic commands, tolls, and palettes, you will import, format, and position text and graphic elements needed to assemble a single-page, black and white flyer. This project will cover the following topics: Restoring default PageMaker settings. Changing the view of a publication. Creating a new publication. Opening an existing publication. Setting up the horizontal and vertical rulers. Displaying and hiding guides. Positioning the zero point. Using the pointer tool, the text tool, and the zoom tool. Specifying multiple columns. Locking the guides. Creating, placing formatting, and positioning text and graphic elements. Creating a drop cap. Applying a tint to text. Specifying a hanging indent. Creating ruler guides. Drawing circles, rectangles, and lines. Adjusting the stacking

order of elements on the page. Range kerning text. Using the Snap to Guides option.
**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills.
**Number of Sessions:** One
**Price:** Standard Members: $75.00, Associate Members: $125.00, Non-Members: $125.00
**Book Price:** $10.00 to be paid with class registration.
**Instructor:** Blake Lange
**Scheduling:** Evenings

### PageMaker Clinic- (H)

This class is for those who have some experience with PageMaker and are interested in asking questions and having specific problems discussed. The class will be a questions and answer format and you should bring along on floppy a sample of things for which you would like help.
**Prerequisite:** 4 Part New User Set or Brush Up Your Mac Skills along with Introduction to PageMaker or a good knowledge of the basics of PageMaker and its interface.
**Number of Sessions:** One
**Price:** Standard Members: $75.00, Associate Members: $125.00, Non-Members: $125.00
**Book Price:** Same book as used with Introduction to PageMaker.
**Instructor:** Blake Lange
**Scheduling:** Evenings

## BEGINNING PROGRAMMING

**Beginning AppleScript - Teaching your Mac to "Stay" and "Sit"- (M)**

AppleScript is the Macintosh technology for automating repetitive tasks. It comes preinstalled and is available to any Mac user who wants to teach his/her Mac to do simple chores. This 1 session course starts by introducing the concepts behind AppleScript. We then use the Script Editor to explore the scripts that Apple provides. Users then create simple Finder scripts using the "record" feature of the Script Editor. Finally, students are provided with more complex scripts to use as starting points for developing their own solutions to simple system maintenance problems.
**Prerequisite:** Demonstrated advanced Mac OS user skills, 5-part New User Set,
or Brush Up Your Mac Skills
**Number of Sessions:** 1
**Price:** Standard Members: $50.00, Associate Members:

$100.00, Non-Members: $100.00.
**Instructor:** John Barnes
**Scheduling:** M-T-W-TR-F either Morning or Afternoon AND Evenings

**Intermediate AppleScript - Teaching your Mac to Fetch the Newspaper- (H)**

Building on the knowledge gained in "Beginning AppleScript", this 2 session course, helps the user develop AppleScripts to automate workflow in more complex environments. We learn to exploit the scriptability of major Mac applications. Advanced AppleScript programming environments are used develop full-blown applications. Examples include AppleScript applications for system maintenance, database management, desktop publishing, and similar tasks in work environments.
**Prerequisite:** Beginning AppleScript
**Number of Sessions:** 2
**Textbook:** To Be Announced
**Price:** Standard Members: $100.00, Associate Members: $150.00, Non-Members: $150.00.
**Instructor:** John Barnes
**Scheduling:** M-T-W-TR-F either Morning or Afternoon AND Evenings ■

*Time for nominations to the Board of Directors. Consider working in this important position.*

*Write for the journal. Share your computer experiences!!!*

*Part of a SIG? Help by sending copies of your minutes to the journal.*

# Classifieds

Classified advertisements can be placed by mailing copy to the business office of Washington Apple Pi, Ltd., 12022 Parklawn Drive, Rockville, MD 20852. Be sure to include your WAP membership number and indicate area codes with your phone numbers. Ads must be received by the ad copy due date listed in the calendar page for that month in order to be included in the appropriate issue. Any ads postmarked after that time will be included at the discretion of the editor. Cost is $2.00/line (40 characters per line), maximum 12 lines. Members of Washington Apple Pi, Ltd., may place ads up to three lines at no charge. The editor reserves the right to refuse any ads deemed inappropriate.

## Services

### Waterfront property

—Are you interested in a second home or a retirement home on the water but not too far from DC? Within 2.5 to 4 hours of the District is the Northern Neck of Virginia. Located between the Potomac and Rappahannock Rivers this area has an extensive selection of waterfront properties either in communities with amenities or in more secluded settings. If you are interested in learning more about properties in the Northern Neck please call Kathryn Murray at 804-580-2366 or email her at KAM129@aol.com (Realtor® with Barnes Real Estate Inc.)

### Law Office of Richard S. Sternberg

A General Practice of Law since 1984
General Civil & Criminal Litigation
Employment, Labor & Civil Rights
Personal Injury & Auto Accidents
Business and Corporate Practice
Domestic Relations
Wills & Probate
Admitted DC, MD, VA &
Fed. Courts
First consultation free and discount rates with valid Pi membership
(202) 638-2300

—**Mac Tutoring and troubleshooting help.** Arlington area. $50/hour. Phil Shapiro. Contact pshapiro@his.com

## For Sale

—**Computers on Demand**
Used Macs, Powerbooks & Peripherals. We Buy, Sell, Trade, Repair & Upgrade all Mac Equipment. Call for Quotes. All Major Credit Cards Accepted (301) 718-0822

—**ClarisWorks Users Group Discount.** Loyal WAP members receive a $5 a year discount on their CWUG (ClarisWorks User Group) membership and renewals as a benefit of their WAP membership. WAP Members must identify themselves as such and then deduct $5 from the regular $39 (printed ClarisWorks Journal) or $34 (electronic ClarisWorks Journal) membership dues when they join or renew. Contact the ClarisWorks Users Group directly at Box 701010, Plymouth, MI 48170; toll-free at (888) 781-CWUG; Fax: (734) 454-1965; Email: <membership@cwug.org> or web site http://www.cwug.org.

## Help Wanted

—**Senior Software Engineer:** V-ONE Corporation is looking for a Senior Software Engineer for Mac Client. Please refer to our website at www.v-one.com, or e-mail HR at paige@v-one.com

—**Idactix, LLC Consulting** - Expert Mac solutions and troubleshooting. Services include networking, AirPort, FileMaker databases, AppleScripting, PC/Mac integration, and data backup. Prompt on-site service. 301-530-2607 or info@idactix.com.

—**Volunteers Needed:** Recording for the Blind and Dyslexic of Metro Washington is looking for volunteers who can read technical books (currently working on data structures in c++ for example). We are located in Chevy Chase at the Friendship Heights Metro, 5225 Wisconsin Ave. NW (at Jennifer Street- across from Mazza Gallery). We need computer literate folks willing to volunteer for 2 hours a week, to help read textbooks onto tape. The tapes are used by students borrowers. Interested folks can come by on Wednesday evening, January 20th, between 6-8pm for an open house orientation. Else, they can call Laurel after 3pm at 202-244-8990 and get more info. Evening sessions start at 5:30 and 7pm, Monday-Thursday. ∎

**Washington Apple Pi, Ltd. 12022 Parklawn Drive, Rockville, MD 20852**

## Membership Application          ☐ *New Member*     ☐ *Renewal*

*Please print or type:*

Name _____ Company_____

Address_____

City_____ State_____ Zip_____ Email_____

Home Phone_____ Work Phone _____
*(Must have for the TCS)*
                                         Occupation_____

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*Please answer a few questions for us regarding your computer use. Check the computers/equipment that you use on a regular basis.*

☐ Apple II
☐ Apple II GS              ☐ IBM, PC clone
☐ Apple III (SARA)         ☐ PowerBook
☐ Mac Plus, SE             ☐ Centris (all)
☐ Mac SE30, Mac IIx        ☐ Quadra (all)
☐ Mac LC (series)          ☐ Power PC/Mac
☐ Mac II                   ☐ G3
☐ Performa (all)           ☐ iMac
☐ Other _____

**WAP has many Special Interest Groups (SIGs) and Regional Groups (SLICEs). Please check each group you would be interested in.**

☐ Annapolis Slice          ☐ Graphic SIG
☐ Columbia Slice           ☐ NOVA/Educa-
☐ Delmarva Slice             tors SIG
☐ Frederick Slice          ☐ Game SIG
☐ Disabled SIG             ☐ QuickTime SIG
☐ Excel SIG                ☐ Retired SIG
☐ FileMaker SIG            ☐ Stock SIG
☐ Geneaology SIG           ☐ Women's SIG
☐ *I can serve as a*       _____
*Hotline contact for*_____

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*Enclose check or money order payable to Washington Apple Pi, Ltd. If you are using a credit card please remember that we only accept VISA and MasterCard.*

☐ Check/Money Order      ☐ VISA      ☐ MasterCard

Card Number_____

Exp. Date_____ Signature_____
                                          *(Required)*

☐ Basic Membership—1 year        $49
☐ Student rate* for 1 year       $42

### For other options please add correct amounts
☐ WAP Bulletin Board System (TCS)**with e-mail **$ 20**
☐ WAP Bulletin Board System (TCS)**with Internet **$ 171**
☐ 1st class mail (U.S.) **$17**
☐ Airmail to Canada, Mexico, West Indies or Cental America **$20**
☐ Airmail to Europe & South America **$38**
☐ Airmail to Asia & elsewhere **$48**
☐ Surface to Europe, Asia & elsewhere **$18**
                    **Total enclosed $_____**

*Please enclose photocopy of current student ID.
** Access to the TCS is contingent on WAP having a current home telephone number for the member.

*Indicate desired New Member Kit (1 only)*
☐ Mac 400k
☐ Mac 800 k
☐ Mac 1.44 k
☐ Mac CD

*Please circle Yes or No for the 2 items below.*
1. Please leave my name on the Pi mailing list. (The list never leaves the office and all mailings are supervised by the Pi staff.)
          Yes          No
2. My name, address & phone number may be published in the membership director.
          Yes          No.

_____
*Applicant signature and date*

# Pi Fillings: The CD, Version 9.0

Available at General Meetings for $10, or $12 via snail mail. Call the Pi office at 301-984-0300, or send an order by mail to: Washington Apple Pi, 12022 Parklawn Dr., Rockville, MD 20852

**Apple Updates**

AirPort 2.0
Apple DVD Player 2.7
Apple Modem Updater 2.0
Authoring Support 1.1.3
Battery Reset 2.0
CarbonLib 1.4
Disc Burner 1.0.1
DVD-ROM Firmware Update
Ethernet Update 2.0
FireWire 2.5
Font First Aid 1.0
G3 CD Update 2.0
G3 Firmware Update 1.1
G4 Cube FW Update 4.1.9
G4 FW Update 4.2.8
iBook Audio Update
iBook Battery Reset 2.0
iMac CD Update 2.0
iMac DVD-ROM Update 1.0
iMac FW Update 4.1.9
iMac Power Management Update 1.1
iMac Update 1.1
iMovie 2.1.1 Updater
iPod Updater 1.0
Mac OS ROM Update 1.0
Older Software Downloads
Open Transport 2.6 Update
OpenGL 1.2.1
PowerBook Firmware Update 2.4
PowerBook G3 DVD-ROM Update
PowerBook G3 Series Modem 1.0.2
PowerBook G3-Which Do I Have?
PowerMacG4 AGP Update
QuickTime 5.0.2, Where Is It?
Running OS 8.6 on your iMac?
Runtime for Java 2.2.5
Sleep Memory Extension 1.0
Ultra2 SCSI Firmware 1.1
USB Card Support 1.4.1
USB Mass Storage Support 1.3.5
USB Print Sharing 1.0
Video Extension 1.0

**Application Updates**

Adaptec DirectCD™ 1.0.4 Update
Adaptec Toast Deluxe 4.1.2 Updater
Adaptec Toast Deluxe 4.1.3 Updater
Adaptec Toast OEM 4.1.2 Updater
Adaptec Toast OEM 4.1.3 Updater
Adaptec UDF Volume Access 1.0.4
AppleWorks 6.2 Update
AppleWorks 6.2.1 Updater
DiskWarrior 2.1.1 Extension Update
Handspring 3.5.2 v1.5 Updater
Handspring Photo Album 1.0
Handspring Updater V1.0.0
Humongous OS9 Patch
Mac Palm Doc 2.0.7
Microsoft Office 2001 Security Updater
Microsoft Office 2001 Service Release 1
Microsoft Office 98 Macintosh Edition/Mac OS 9 Updater
Microsoft Office 98 Update for Mac OS 9.0
Microsoft Office 98-PowerPoint 98 Updater
Microsoft Office 98/FileMaker® Pro Importer
Microsoft Office Combined Updater for Office 98
Microsoft Office Manager
Microsoft Office PowerPoint 98 Viewer 4.0
Microsoft PowerPoint 95 Translator for Mac PowerPoint 4.0 (68k)
Microsoft PowerPoint 95 Translator for Mac PowerPoint 4.0 (PPC)
Microsoft PowerPoint Viewer 4.0
Microsoft PowerPoint/Excel 2001 Macro Security Update
Microsoft Word 2001 Security Update
Microsoft Word 98 for Macintosh Security Update
MS Office 98-PP98 Updater
Palm OS Software 3.5 Upgrade
PhotoRelay 1.0.4
Roxio Jam 2.6.2 Updater
TechTool® Pro 2.5.4 [AppleCare]
TechTool Pro 3.0.5 Updater
Toast CD Reader 3.5.6
Toast Deluxe 4.1.2 Updater
Toast DVD 3.7.1 Updater
Toast Lite 5.0.2 Updater
Toast Titanium 5.0.2 Updater
Word 97-98 Importer (for 5.x)

**Driver Updates**

Apple Printer Utility Version 2.2
AsanteFast2.2
Cameraid 1.1.4
FastEtherTX-10/100+ 2.4.img
HiSpeed USB SA19w v1.8.4
HotSync 2.6.1 Updater
ImageMate USB CompactFlash I
ImageMateUSBCF I,II, SmartM, MM
iMate Driver 2.52
iMate Fiddler 1.51
Intuos (Wacom) 4.7.1-4
iPort Control 1.4
Keyspan DMR (2.0.3)
Keyspan USB 19/19Q PDA Adapter 2.4
Keyspan USB Card Assistant, v1.1
Kodak USB Card Reader
Microtech DPCM-USB Installer
Minolta - DC 10
Olympus USB Reader 1.1.7
PowerDomain 2940U2W v1.1
PowerDomain 39160 1.0.2
PowerDomain Control 6.1.1
PowerDomain Utility 4.0
Stylus Photo 780
Stylus PRO 5500 6.7aE
Universal Reader 2.3
USB PDA Adapter SA19 v2.4
USB TelePort Modem 1.0.2 Extension
USB Twin SA28X v1.8.4
VST Flash Media Reader 1.0.1
VST Storage Device Drivers
VST USB Tri-Media_1.0
VueScan7.2.10
ZIO! CompactFl/SmartM/MultiMed
Astra MX3 VistaScan 3.7.5
Canon Printer
Castlewood ORB v1.42
Epson Stylus update 1.0cEs
FotoLook 2.09.2 Installer

**HP Scanner**
5300c, 5370c, 6300, 6350, 6390c
HP PrecisionScan Pro 1.4.2
HP Printer
HP 750 Series Patch 2.0.6
DeskJet 600 & 800 Series
For All USB DeskJet Printers
HP DeskJet Classic 4.3
hp deskjet installer Classic
LaserJet for Macintosh
Imation Storage Device
Iomega Storage Devices
Kensington MouseWorks 5.7
Keyspan Digital Media Remote (2.0.3)
Keyspan SX Pro (1.4)
Keyspan USA19W (1.8.4) High Speed USB Serial Adapter
Keyspan USA28 (2.1) Serial Adapter
Keyspan USA28X (1.8.4) USB Twin Adapter
Keyspan USB 4-Port SA49W v1.1 Serial Adapter
LaserWriter 8 Printer Driver Version 8.6.1
Lexmark Z22 Color Jetprinter
Lexmark Optra Color 45
Lexmark Z12 Color Jetprinter
Lexmark Z42 Color Jetprinter
Lexmark Z52 Color Jetprinter
Microtek ScanMaker
MouseWorks MD 5.1a USB
PowerDomain 2940UW
PowerDomain SimSCSI
PowerDomain39160 v 1.02
SCSI Card 2906
Stylus C 980/860N 6.4aE
Stylus Color 760 6.3AE
Stylus Color 800 6.6AE
Stylus Color
Stylus
Stylus 880
Stylus 900-6.6
Stylus Photo
UMAX Sca
USB Overdrive
VST Serial
USB
USB Storage 1.2 installer
ROM TABLET SYSTEM DRIVER VER 4.1.14

Oops
OTTool 1.2.1
PrintToPDF 2.3
Rosetta 1.4.2
Screen Catcher 2.2
TaoGuard 2.0
TechTool 3.0.1
WormScanner 2.3
ZipIt 2.1

Fun Diversions
Amazing Slow Downer 1.14
AMP Radio 1.6.5
BayTex Party! Pro 2.5.2
Coaster 1.1.3
eggTime 1.3.1
Gravité 2.0.2
iPod Free File Access 1.1b2
iTunes Tool 1.3
Joliet Volume Access 1.4.2
MacAmp™ 2.0.1
MP3 Title Fixer Script 1.3
Oh No! More Lemmings
Snood 2.11
Sound Studio 1.5.5
SoundApp 2.7.3
Sweet MIDI Player 1.0.4

Get Smart
A Parent's Guide To Hate On The Internet
About AirPort2
Add A PC
AirPort 1.0: About Airport
AirPort 1.1: Base Station Extras Folder Contents
AirPort 1.2: Updating Base Station Firmware
AirPort: America Online Compatibility
AirPort Base Station: Channel Selection and Overlap
AirPort Base Station: Character Limit for User Name and Password
AirPort Base Station: Description
AirPort Base Station: Enter DNS Information During Setup
AirPort Base Station: Internet Application Timeout Error Discussion
AirPort Base Station: Technical Specifications
AirPort Base Station: Troubleshooting a Dial-up connection
AirPort Base Station: X2 Modem Compatibility
AirPort Card: Disable During Air Travel
AirPort Card Not For Use in Standard PC Card Slot
AirPort: Compatibility With Older Macintosh Products
AirPort: Configuring a Base Station With a non-AirPort-Capable Computer
AirPort Setup Assistant: Steps to Complete Before Base Station Setup
AirPort: Supported Internet Service Providers
AirPort: Third Party Wireless Software and Network Password

AirPort Utility1.2-Can't Find Base Station
AirPort Version 1.2: Base Station Forced Reload
AirPortWireless FAQ 1of3 58414
AirPortWireless FAQ 2of3 58415
AirPortWireless FAQ 3of3 60422
Apple Memory Guide -- November 2000
Apple Product Software Isolation Troubleshooting
AppleSpec 10/2001
Child Safety on the Information Highway
Creating a Small Ethernet Network in Your Home or Office
Cube -- AirPort: Card Replacement Instructions
Cube -- ATA Hard Drive Replacement Instructions
Cube -- Battery Replacement Instructions
Cube -- Memory (DRAM DIMM) Replacement Instructions
Designing AirPort Networks
Ethernet Network for Two Macs
Extensions Manager: Extensions Off Compared To Shift Down When You Start Up
Filtering software for children.
FireWire Ports: Specifications
Hard Drive: Options for Backing Up Contents
iBook: Installing AirPort Card
iBook-InstallAirPortCard.mov
iMac (All Models): How To Differentiate Between Models
iMac (All Models): Memory Specifications and Upgrades
iMac: Attaching an External Display
iMac: How to Install an AirPort Card
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