ATPM

About This Particular Macintosh: About the **personal** computing experience™

Cover Art

Copyright © 2003 by Grant Osborne
We need new cover art each month. Write to us!

Editorial Staff

Publisher/Editor-in-Chief	Michael Tsai
Managing Editor	Christopher Turner
Associate Editor/Reviews	Paul Fatula
Copy Editors	Raena Armitage
	Dan Boland
	Johann Campbell
	Ellyn Ritterskamp
	Brooke Smith
	Vacant
Web Editor	Lee Bennett
Publicity Manager	*Vacant*
Webmaster	Michael Tsai
Beta Testers	The Staff

Contributing Editors

How To	Ken Gruberman
	Robert C. Lewis
	Sylvester Roque
	Charles Ross
	Vacant
Interviews	*Vacant*
Legacy Corner	Chris Lawson
Music	David Ozab
Networking	Matthew Glidden
Opinion	Matt Coates
	Ellyn Ritterskamp
	Mike Shields
	Vacant
Reviews	Eric Blair
	Kirk McElhearn
	Gregory Tetrault
	Vacant

Technical	Evan Trent
Welcome	Robert Paul Leitao

Artwork & Design

Graphics Director	Grant Osborne
Graphic Design Consultant	Jamal Ghandour
Layout and Design	Michael Tsai
Cartoonist	Matt Johnson
Blue Apple Icon Designs	Mark Robinson
Other Art	RD Novo

Emeritus

RD Novo
Robert Madill
Belinda Wagner
Edward Goss
Tom Iovino
Daniel Chvatik

Contributors

Lee Bennett
Eric Blair
Dan Boland
Matthew Coates
Paul Fatula
Ken Gruberman
Matt Johnson
Robert Paul Leitao
Robert C. Lewis
Kirk McElhearn
Ellyn Ritterskamp
Sylvester Roque
Charles Ross
Katherine Sears-Lent
Mike Shields
Gregory Tetrault

Evan Trent
Macintosh users like you

Subscriptions

Sign up for **free** subscriptions using the
Web form or by e-mail.

Where to Find ATPM

Online and downloadable issues are
available at http://www.atpm.com.

Chinese translations are available
at http://www.maczin.com.

Production Tools

Acrobat
Apache
AppleScript
BBEdit
CVL
CVS
DropDMG
FileMaker Pro
FrameMaker+SGML
Mesh
Mojo Mail
MySQL
Perl
Photoshop Elements
Python
rsync
Snapz Pro X

ssh
StuffIt
Super Get Info

The Fonts
Cheltenham
Frutiger
Isla Bella
Marydale
Minion

Reprints
Articles and original art cannot be reproduced without the express permission of ATPM, unless otherwise noted. You may, however, print copies of ATPM provided that it is not modified in any way. Authors may be contacted through ATPM's editorial staff, or at their e-mail addresses, when provided.

Legal Stuff
About This Particular Macintosh may be uploaded to any online area or included on a CD-ROM compilation, so long as the file remains intact and unaltered, but all other rights are reserved. All information contained in this issue is correct to the best of our knowledge. The opinions expressed in ATPM are not necessarily those of this particular Macintosh. Product and company names and logos may be registered trademarks of their respective companies. Thank you for reading this far, and we hope that the rest of the magazine is more interesting than this.

Thanks for reading ATPM.

Sponsors

About This Particular Macintosh has been free since 1995, and we intend to keep it that way. Our editors and staff are volunteers with "real" jobs who believe in the Macintosh way of computing. We don't make a profit, nor do we plan to. As such, we rely on advertisers and readers like you to help us pay for our Web site and other expenses.

We've partnered with CafePress.com to bring you high-quality [ATPM merchandise](). For each item you buy, $1 goes towards keeping the atpm.com server running. You can also help support ATPM by buying from online retailers using [our links](). If you're going to buy from them anyway, why not help us at the same time?

We also accept direct contributions using [PayPal]() and [Amazon's Honor System](). We suggest $10 for students and $20 for individuals, but we greatly appreciate contributions of any size.

Finally, we are accepting inquiries from interested sponsors and advertisers. We have a variety of programs available to tailor to your needs. Please contact us at advertise@atpm.com for more information.

Welcome

by Robert Paul Leitao, rleitao@atpm.com

Welcome to the June issue of *About This Particular Macintosh!* This month all eyes and ears are focused on the upcoming WWDC or World Wide Developers Conference. The conference was moved from May to June ostensibly to provide more time for Apple to mature Mac OS X 10.3, code-named "Panther," for developer release. Panther is planned as the next incremental upgrade to Apple's Unix-based operating system.

But it wouldn't be an Apple conference without rumors and speculation run amuck! Much of the Mac-using world is anticipating news of new processors at the June developer gathering. Whether or not Apple provides news of the much-expected move to IBM's 64-bit PPC 970 may overshadow news about Panther.

iTunes, iPods and International Ire (Part II)

Last month in this space we mentioned the release of Apple's new iTunes Music Store. In the first two weeks of the digital music store opening its doors, Mac users have downloaded over two million songs; half of the reported downloads were part of full album purchases. At press time no additional reports on download rates have been released.

However, Wall Street analysts and journalists have come out en-masse to decry that Apple's new music service won't bring the company a lot of new-found success. Excuse us? Has any Apple executive claimed the iTunes Music Store is the in and of itself a pathway to new profitability?

At $.34 margin per song before costs it would take hundreds of millions of song downloads to create a significant profit for Apple. After paying the labels their $.65 fee on each $.99 download, Apple must cover its own expenses, including expenses to Akamai for Internet-based content delivery, credit card transaction fees, and the high costs of maintaining and further developing the service.

Apple's goal isn't to just sell music. It's to sell iPods and other iTunes Music Store accessories. At gross margins of 30% or more, the iPod is Apple's way to cash in on its popular music service. The date of release for the Windows version of iTunes has yet to be announced. One can expect an adequate supply of iPods will be available in stores when Apple delivers the Windows version of the music store to consumers.

In the meantime, overseas Mac users are still clamoring for access to the music service.

The Browser War Is Over, But the Real Work Begins

In late May, AOL Time Warner and Microsoft settled their dispute over Microsoft's use of its monopoly status to overtake Netscape in the browser business. AOL had purchased Netscape and filed suit against Microsoft on behalf of its subsidiary following the acquisition.

To settle the dispute, Microsoft agreed to pay $750 million to AOL Time Warner and in return the two companies agreed to work together on various digital media initiatives. Under the deal, AOL is permitted to use Microsoft's Windows Media Player.

This agreement poses new challenges for Apple and its QuickTime product. The AOL Time Warner and Microsoft feud had kept Microsoft's push to dominate the media player market at bay. The agreement settling the browser war may raise more questions than it resolves.

Buy Now, Learn Later

A quick look at the calendar indicates schools will soon be out of session. Just in time for the summer break, Apple is offering students a $200 rebate on the purchase of a qualifying laptop and iPod. Even those of us who have been out of school for a while can do the math. A laptop and iPod purchased at the same time equals a healthy profit for Apple and a cool savings offer for students. There's no word at press time as to whether or not the rebate offer will be extended to consumers for the summer months.

Bondi Bye Bye

Five years after its much-heralded introduction, the CRT iMac has been discontinued. The computer that revitalized Apple Computer and reestablished the company as a leader in technology innovation is no longer available for purchase.

First released in a colored shell intended to mimic the color of water found along a section of the Australian coast, the classic iMac eventually appeared in a variety of colors and designs during its storied history.

The classic CRT iMac has been replaced in Apple's product line by the one-color G4 eMac that is now available to consumers at a starting price of $799. This price is $500 lower that the cost of the original Bondi blue iMac that debuted five years ago at $1,299.

Before We Say Good Bye Until July

Before we say goodbye until our July issue, please don't miss any of the reviews and columns in this June issue of ATPM. While the Mac world waits in anticipation of news from this month's WWDC, our pages this month are filled with informative reviews and interesting columns about everything Mac.

The ATPM Staff

Our June issue includes:

The Candy Apple: Checking in on the Home Front

Let's visit the Apple home page and see what's going on.

Machine Language: Apple Goes to Ex-streams

Matt Coates discusses the recent spate of music "swapplicationing" that has occurred vis-à-vis iTunes 4, and Apple's recent remedy.

Hollywood: Rupert Murdoch Owns a Mac

Mike Shields discusses the Digital Cinema Initiative, Apple's music service, and convergence.

Segments: Jumping Directly from OS 9 to Jaguar

Resident ATPM curmudgeon Evan Trent makes the switch from Mac OS 9 to Mac OS X 10.2. He details his experience in doing so, and offers up his likes and dislikes of the current Mac OS.

About This Particular Web Site

This month's *ATPW* helps you learn about your name and put it on a license plate. It also offers fifty-two (well, OK, thirty-eight) projects you can try, none of which will help liberate innocent garden gnomes, but once you've worked up a thirst there'll be plenty of milk to look at.

Roll Your Own: Getting the List of It

Chuck Ross delves more into software creation, showing how to wrap AppleScript lists into an object.

Report: MacFest 2003

Robert Lewis reports on the phenomenon of mini Mac conventions by attending the one held by the Houston Area Apple User Group.

What's Under the Hood: Tips

Robert Lewis has tips about the System Preferences toolbar, opening new Finder windows, and adding a SuperDrive to your Mac.

Cartoon: Cortland

The desktop wars continue in the latest round of *Cortland* cartoons by Matt Johnson.

Desktop Pictures: Landscapes

ATPM reader Katherine Sears-Lent offers up a fantastic collection of pictures for your desktop enjoyment. Katherine's photos feature Savannah and Calloway Gardens in Georgia; Sonoma Valley in California; Long Island; and Tampa, Florida.

Review: d2 External FireWire CD-RW Drive

For those whose old Macs don't include internal CD burners, Dan Boland reviews LaCie's d2 External FireWire CD-RW Drive. Screaming fast and bundled with Toast Lite and SilverKeeper, this drive is well worth your consideration.

Review: David Faxes Goliath

In David Faxes Goliath, Ken Gruberman reviews two OS X faxing programs, the well-known giant FAXstf Pro and the lesser-known shareware program Page Sender. While FAXstf offers little but trouble and disapplicationointment, Page Sender comes through beautifully.

Review: HTML Character Converter 1.0

Mac users like simple things to work simply, and no exception is made for writing Web pages. Lee Bennett introduces you to HTML Character Converter, a program which will save you the trouble of learning and typing entity codes for unusual or accented characters for display on the Web.

Review: Legion 1.0

Fans of Civilization-type games will want to check out Gregory Tetrault's review of Legion, a similar turn-based strategy game. While the chief focus of the game is organizing and deploying armies, only a few crude commands are available, after which you have no control over the battle.

Review: Path Finder 2.1.1

Sylvester Roque wasn't sure at first why he volunteered to review Path Finder, but after checking out the program, he was glad he did. Path Finder replaces most of OS X's Finder with a file management interface which is in many ways superior.

Review: Unix CD Bookshelf 3.0 (CD-ROM)

If you want all the value of a Unix library but don't want to have to carry it around, Kirk McElhearn has the solution for you: O'Reilly & Associates' Unix CD Bookshelf, with seven Unix titles all on a CD, at a price substantially lower than the print versions.

Review: Wipeout 2097 1.2.1

Those who remember playing F-Zero on their Super Nintendos will want to check out Eric Blair's review of Wipeout 2097, a fantasy-style racing game in which you can run a course for time or compete against other racers.

E-Mail

SPSS Review

I use STATA as my main statistics engine on my 400 MHz G4 running OS X 10.2.4 with 636 MB of RAM. It is fast, ridiculously complete (13 volumes of documentation), programmable, and relatively cheap. Unlike SPSS and SAS, The STATA developers have kept some perspective on their pricing and there is an active user community that constantly adds new routines. This, no doubt, is one reason why the application is growing in popularity.

For open source work in OS X, the choice is R. This is an open source version of S, done by pretty much the same development team. R has just been selected as the recommended statistics software at the Interuniversity Consortium for Political and Social Research at Michigan, so expect it to be much more widely used in the future. I haven't downloaded it yet because it needs to be recompiled and, frankly, I don't need it. It's there and free for those who do, however.

—Tracy Lightcap

• • •

SAS makes JMP for OS X and it is much easier to use for statistical work than SPSS. I beta-tested earlier versions of SPSS and JMP. Once you use JMP, you will never go back. It is a rich, visual environment for data analysis. Previous versions integrated with AppleScript and JMP's own native scripting language so that you could, for example, automatically export your FileMaker data, have it imported into JMP, run survival curves, and export the raw survival data or the pictures with a single click.

—Howard

JMP does some things very well, but there are other things it does not do well at all. I have contacted Stata and will try to get a copy for review. I hope ATPM will print the comparison. I am also installing the 10.0.8 revision to try it out and am eagerly awaiting 11.02. *—David Zatz*

Converting LPs to CDs

Like many Mac users, converting vinyl recordings to digital format so that I can enjoy them on my Mac (or in my car's CD player) has been on my "to do" list for longer than I care to admit.

Your three-part series is the most well-researched and carefully documented example of how to do this that I have encountered and I want to express my sincere thanks for taking the time and effort to test and document your findings. You have saved Mac users countless hours of trial and error and the frustrations which accompany finding out things the hard way.

I've got an iMic, downloaded a copy of Amadeus, and am preparing to unhook my turntable from my home stereo system to connect it to my Mac in the office with a fresh burst of confidence and enthusiasm thanks to your help.

Once again, thanks for a great series. I look forward to posting it on my user group's Web site as the primer for getting precious vinyl music back into the limelight!

—*Glenn Chase*

• • •

Robert Lewis is to be commended for a beautifully written series that not only has the detail necessary to satisfy the most technically oriented, but lays the groundwork of understanding for the rest of us. Kudos.

—*Frank Loftin*

• • •

I just wanted to send a note of thanks for this series of articles. It couldn't have come at a better time. My wife and I had been pining to find a way to preserve and listen to our music on vinyl LPs that will likely *never* be released on CD. These articles have provided some great info to help get us on our way. Thank you!

—*Michael Hogan*

Ten Thumbs Typing Tutor Review

When I decided to finally learn to touch type in January of 2001, I chose to learn the Dvorak layout. Ten Thumbs was the *only* Mac typing tutor program I found that taught Dvorak, so that's what I ended up using. Even Mavis Beacon dropped Dvorak support several versions ago.

While I can't disagree with any of your specific gripes about the program, they didn't keep me from successfully learning to touch type. And while the other programs you mention might be superior to Ten Thumbs in various ways, if they don't support Dvorak then they are useless to anyone who wants to learn it. Ten Thumbs is the only option.

—Karl von Laudermann

Upgrade?

I am a Power Mac 9500 user. I initially bought it off eBay to get around better on the Internet than my Performa 630CD. It has been a wonderful machine, extremely fast in comparison. Then I started looking into upgrades, and have become an upgrade "junky." It now has 960 MB of RAM, a 500 MHz Sonnet G3 processor, USB and FireWire, Mac OS 9.2.2, and it's flying.

Sometimes I consider putting more upgrades into it, but have reservations. What is the limit to the machine itself? Some things I have tried to do I have been told that I just can't with this machine, like installing an internal DVD drive as an example. Is there any documentation as to the limits of expansion of this machine?

Through the OWC Web site, I have downloaded XPostFacto that will allow me to run OS X. I also have considered a G4 800 Sonnet upgrade, and an ATA 133 card so that I can run the less expensive big hard drives. Of course, the main consideration for me is, how much do I spend before I am wasting my money and should just buy a G4. Is it possible to create an "almost G4" machine out of this 9500 for 1/2 the cost of a new one? When I look at the upgrade possibilities, it seems like it.

I have asked enough questions. Thank you for your informative Web site, and of course for your time.

—Brian Bergman

I've been down this road before myself. I think there comes a point when it is no longer a good use of money to continue upgrading and a new machine must be purchased. The 9500 itself has a lot of upgrade paths and as a result you have been able to keep the machine pretty up-to-date. But there are some things you cannot get around, such as the slower bus speed, the slower PCI slots, lack of an AGP slot for video, etc.

I think you've hit the ceiling with that 9500. I know the feeling, because it was hard for me to let go of my 8500. In fact, I upgraded that machine for a long time until eventually I got myself a G4 tower. I put a fast ATA card in it, a new video board, maxed out the RAM, put a very fast G3 processor in it, ripped out the floppy drive and stuffed all the bays with new drives. Eventually I got to the point where I couldn't go anywhere but to a G4, and the price of such an upgrade from Sonnet was high enough that I decided to make the 8500 into a server and buy myself a new G4 tower. Yes I would have saved money by upgrading instead of buying a new machine, but the G4 tower I got was worth every penny and a major step up in performance and expandability (and it sure was a *lot* easier to work on with that flip-open side latch) I feel it was definitely the right choice.

The new machines Apple has introduced will blow your mind. They are extremely fast, come with all sorts of goodies (like Gigabit Ethernet, great video boards with ADC/DVI output, AirPort Extreme, etc.) and I think you'd be quite surprised at how much zippier even a modest new G4 will be compared to your maxed out 9500. Some of this has to do with the limitations I mentioned above, such as bus speed, slower PCI slots, etc. But in every respect the machines have a peppier feel to them—the screen draws faster, the computer responds quicker, network activity is quicker, etc. You won't be able to turn your 9500 into one of these machines no matter how hard you try or how much you spend. So in that sense you've hit the point of diminishing returns, where you can only squeeze so much performance out of the machine, yet the price of upgrades is still significant.

And of course, if you wish to run OS X it can be difficult to do so on a highly tweaked machine such as yours. In fact many such machines won't boot OS X at all. For some folks this isn't a concern, but for others it's a major issue.

Yes, you can always upgrade for less money—but I don't think it makes sense for you to do so based on the state of your current machine. That's just my opinion, and I realize you've invested a lot of time and money in your 9500 so you may not want to let go of a highly customized machine. I would however encourage you to take the plunge and rack up a little more credit card debt by picking up a new G4 tower.   —*Evan Trent*

Video Mirroring

I can't figure out how to turn on the video mirroring or external monitor. They do not appear as options in Monitors & Sound or in the Control Strip. I am trying to hook up a Macintosh PowerBook G3 to a TV for a PowerPoint presentation using an S-Video connection. I have hooked up everything in the right order.

—*Nancy Hughes*

When you hook up your PowerBook using S-Video to a TV, you must reboot in order for the machine to recognize the external monitor (if you use a VGA connection, you can put the machine to sleep and wake it up, but for S-Video a reboot is required).

Then when you open the Monitors control panel, you will see two screens. Drag one of the screens onto the other to enable video mirroring. To disable video mirroring, drag the screens apart (by dragging one off the other).   *—Evan Trent*

Checking in on the Home Front

I've been remiss. I hadn't visited Apple's home page in a while, so I stopped by recently and was amazed at how much genuinely interesting stuff there is. I was tempted by the new iPod and PowerBook; I was intrigued by news reports showing how Apple products are used in all sorts of fascinating ways; I watched movie trailers; and I checked out some stock performance charts. All in all, a fun visit!

Products

My original model iPod is chugging along just fine, but these new models sure do have a lot going for them! I'm tempted to make the move to OS X and iTunes 4 just so I can use the new Apple Music Store. Consumers are excited about that store, too; they purchased gobs of songs the first few days, and Apple's stock went up dramatically when the Street saw how well the idea was embraced.

Two friends are considering laptops. Doing a little homework to make recommendations for them only made me drool over these machines myself. Again, my Blue & White G3 is chugging along fine, but sooner or later I'll eventually succumb. It's like when you buy a new car, and you start thinking about trading it in a couple of years later. My 2000 Honda is doing fantastic, but every once in a while I get a pang …must …resist. It's silly to want something new just because it's new, as long as the older model is still working pretty well. The trick is to maximize your investment, not to keep swapping in new gadgets just because they're available.

News Items

There's a conference in San Francisco in June with a preview of Panther, the next major version of OS X. Can Bobcat be far behind? As long as they stick with kitty cat names, I'm happy.

Macs used to create movie characters and effects. Yup. We knew that.

Macs used to chart molecules of drugs during testing. Coolness.

Macs used to analyze MRI results. Fast. When they need it.

Macs used to chart astronomical phenomena. Far out.

Mac used by screenwriters for the hugely successful summer movie *X-2: X-Men United*. "Mutation. It is the key to our evolution."

The even cooler thing that isn't in the news? All of us, right now, are using Macs to interact with each other and to explore our own creativity and to challenge ourselves to be better.

Movie Trailers

The Last Samurai. It has swords and Tom Cruise. I'm there, but not until December.

A Mighty Wind. Out now. Goofy, weird, funny, by the same people who did *Best in Show* and *Waiting for Guffman*. I had a bad experience with a question about *Guffman* on a game show, so I'll probably never watch it. But friends who have seen it say it's great, and so is this one.

Hulk. Another comic book. Ang Lee directs, so it's way more overdone than *Spiderman* or *X-Men*. Looks cartoonish rather than comic booky. But there are several other trailers available; maybe one of them presents a different perspective.

It is so cool that we can see movie trailers at home now, without having to wait for them to appear on television. I like the ones we get before movies in the theaters; they're big and loud and compelling. These QuickTime versions sell the movies pretty well, though.

Apple Stock

Still a good buy. A good company that knows how to stay ahead of the market, and how to make consumers want its products.

This was a good visit to apple.com. I believe I'll have to wander by more often.

Onward.

Machine Language

by Matt Coates, mcoates@atpm.com

Apple Goes to Ex-streams

It sure didn't take long for clever programmers to screw up a good thing. Apple had scarcely opened the doors of its new online iTunes Music Store before code writers distorted the software's Internet music-streaming feature into a budding music-stealing enterprise.

Seemingly overnight, the URLs of hundreds, if not thousands, of iTunes libraries were on the Web thanks to ShareiTunes.com, iTunesDB.com, iTunesTracker, Spymac.com, and similar Web sites. ShareiTunes.com alone claims more than 600 links to iTunes collections, with some users offering thousands of tracks culled from hundreds of albums.

Just click a link, choose some songs from a stranger's iTunes library, and sit back as the music flows across the Internet to your Mac.

Well, not anymore. Or at least not for much longer. With the release of iTunes 4.0.1, Apple eliminated Internet streaming as one of the iApp's niftiest features, and you can bet that the next update of OS X will drop support for the earlier version of iTunes. In an uncharacteristically personal press statement following the new release, Apple complained that streaming "has been used by some in ways that have surprised and disappointed us…some people are taking advantage of it to stream music over the Internet to people they do not even know. This was never the intent."

And now, thanks to the short-sighted boneheads who came up with the idea of sharing iTunes playlists on the Web and the Mac users who just couldn't leave well enough alone, a Mac user at the office can no longer tap into a music feed from her Mac at home, or innocently share a playlist with a long-distance pal. That's a real loss to the Mac experience.

Apple calls iTunes streaming Rendezvous Music Sharing, after the OS X instant-networking feature, but don't let the name confuse you. Streaming is *not* the same thing as what most of us call music sharing: the downloading of MP3 files from services such as

LimeWire or the PC-only Grokster. With streaming, you listen to music fed over the Net or through your local network, but no files are copied to your hard drive. (Music bought from Apple's iTunes Music Store is downloaded in AAC-format audio files, a format similar to MP3; only the service's 30-second music previews are streamed.)

Remember Steve Jobs on the Macworld stage a while back, demonstrating Rendezvous by sharing iTunes libraries between a pair of wirelessly-linked Macs? That demo hinted at the streaming features which arrived this spring with iTunes 4 and Apple's online music service: a Mac user can stream music to up to five other Macs on a home or office network and there's almost no setup; Rendezvous knows when another Mac is in the neighborhood. It's a terrific idea; you can tap into your iTunes library, or another one on your local network, without having to copy the music to the various Macs you own or use. Only now, it isn't quite as terrific as it was.

The blame for the demise of Internet streaming only begins with the iTunes library linking sites, because a surprising thing happened soon after the first wave of sites arrived: most of them vanished just as quickly, and apparently without any direct threat of legal action from Apple. It appears that the site developers were horrified to find they had cleared the way for music pirates who sailed in on the second wave armed with software to capture streaming iTunes music. "I cannot, in good conscience, continue to provide a service which will facilitate the theft of copyrighted material," said Rob Lockstone in a statement posted on his iTunesDB.com site. David Benesch, a software developer who provided Spymac.com with the know-how for its iTunes sharing service, told the IDG News Service that the arrival of pirate software was "a tragedy" that put the original "legitimate" file sharing services "in a bad light by not using iTunes as it was designed."

A journey through the iTunes promotional materials and documentation on Apple's Web site did not support this fanciful notion that iTunes sharing sites were ever legitimate or using iTunes as Apple intended. Apple scarcely acknowledged that Internet streaming was part of iTunes; to call the feature's documentation "low key" would be an exaggeration. But Apple could not have be more clear that it intended network streaming, whether local or via the Internet, "for personal use only." Sharing an iTunes library with millions of close personal friends does not qualify.

But let's be charitable. I'm grudgingly willing to accept that Lockstone, Benesch, and other pioneers of iTunes library-linking acted in good faith, somehow believing that the law and the feel-good spirit of sharing were on their side. "It could have been great," Benesch lamented in a statement released after the demise of Spymac's service. "It could have been revolutionary. Stream—don't copy."

Software developer Steve White would not agree. He created iLeech, Mac software with one cynical mission in its [deservedly short life](#): "iLeech will connect to an iTunes host, display their playlist, and allow you to copy the files to your local drive," White says in a statement on the iLeech Web site.

White, who says iLeech was downloaded more than 2,100 times in the first four days it was available, is on the opposite side of the iTunes debacle from Benesch and Lockstone, but he shares their naiveté: "All I can say is 'wow.' In my wildest dreams I would not have imagined the reaction/attention my simple little Java/Cocoa application would receive. When I initially released it, I had honestly never imagined more than a couple of dozen people would be interested in it."

Golly, who could have guessed that people might want to steal music? It's hard to say who deserves a rap in the head more: those who popularized the notion that the first truly workable online music-buying service should be turned into conduit for the wholesale theft of music or the people who figured out how to do it.

More than 3 million songs were downloaded from the iTunes Music Store in its first month, which means a lot of Mac users are excited by what Apple has delivered: legal, reasonably-priced downloaded singles and albums which the user owns, the ability to listen to songs on more than one Mac, and even the right to do something that the music business has until now unyieldingly considered off limits (even if regular folks did not)—sharing of your music collection with a small circle of friends. You'd think that would be enough. You'd be wrong.

It's almost enough to make you sympathize with the music industry.

In his online [Mac Experience column](#) the Baltimore Sun's David Zeiler reports that even Recording Industry Association (RIAA) chairman Hilary Rosen is surprised that "given how far Apple has gone to satisfy the music fan…there is still such passion for getting around

any legitimate system." Rosen told Zeiler that the streaming of iTunes music to strangers shows that "there was always reason to be skeptical about those who have justified their theft by saying that there was no good, legitimate alternative."

I'm no fan of the music biz. I think the major record companies take advantage of their artists through draconian contract requirements and put far too much of the blame for falling music sales on illegal copying and downloading, as if quality and high prices play no part in the equation. Not many businesses could get away with treating customers like criminals, yet the music industry isn't shy about testing software that roams the Internet looking for suspected music pirates.

And while I don't believe that tapping into a stranger's iTunes library is theft unless you're capturing the music, Rosen does have a point. Apple figured out how to sell music online even as most of the PC-centric services such as Pressplay have struggled, snubbed by PC users unimpressed with unreasonable usage restrictions, limited selection, and the music industry's refusal to recognize the arrival of 21st century. The Mac-only iTunes Music store made it easy, if not fashionable, to be legit, yet here are Mac users still determined to find a way to get music without paying for it.

The astounding thing about music downloading and the apparently short-lived effort to steal iTunes music is that they are so disconnected from ethics. I've used bootlegged software and shareware I didn't pay for, but I knew I wasn't doing the right thing and I felt guilty about it. I'm reasonably sure I'm not alone in this. But when it comes to snagging music, people seem gleeful and guilt-free. Maybe it's that euphemistic word "sharing." It's just so cuddly. I'm thinking maybe the bad guys should consider calling car-jacking "car-sharing." They'd feel so much better about it.

Why do we have so much trouble understanding the concept of intellectual property—that most music belongs to someone? Is it so hard to see that buying a CD doesn't confer unlimited rights to do with it as you please? It's yours, sure. And as far as I'm concerned you can make a backup, lend the disc to a friend, or turn the songs into MP3s for your iPod. But you can't go into the music business. You aren't allowed to bootleg copies or upload MP3 copies of the songs, and you have no right to be on the receiving end of such a transaction, either.

Taking music you don't own *is* stealing, whether you download an MP3, capture a music stream, or stuff a CD under your shirt at the music store.

There really isn't a lot of wiggle room on this. You can speculate, as one forum user recently did, that music *can't be owned*—the old "art belongs to all of us" argument. But you'll have a lot of history and law against you on that one, along with almost everyone who creates things for a living. In fact, there's a lot of Web trafficking in purloined artwork, too. Ask any commercial artist who has seen work he wasn't paid for gracing a stranger's Web site.

Or you can resort to the ersatz legal-speak which glues a veneer of phony legitimacy on the arguments of music pirates and their apologists: "Being that the 'recipient' has no access to the *actual media file itself* (but) only playback thereof," wrote one forum user (his italics) on the subject of the iTunes sharing sites, "(this) is not 'theft'—it's 'sharing.'"

Replied another: "Actually, I believe the correct legal term is 'copyright infringement.' The use of the word 'theft' is just propaganda from the record companies to make it sound more evil. There is no way that file sharing could be legally classed as 'theft' under current law… as it does not involve depriving anybody of material possessions."

Actually, I believe the correct legal term is "oh, shut up." (Aside for fans of *The Simpsons:* the preceding two paragraphs are even more fun if read in the voice of the Comic Book Guy.)

So who needs to be a lawyer when you can play one on the Internet? Using quasi-legal buzzwords is much more fun that admitting you're getting something without paying for it. After all, "copyright infringement" is an abstract concept that law professors haggle over and that easy to understand word—theft—is just industry "propaganda."

Another equivocation that pops up a lot on Web forums is the notion that putting an iTunes playlist on the Internet makes you a Webcaster. This will soon be a moot point, but it's worth looking at because it illuminates the fractured logic that is so common in the dispute over music sharing. Sharing an iTunes playlist doesn't make you a Webcaster because you don't control the flow of music the way a radio station does. The listener chooses songs from your music collection which makes *them* the "radio programmer." As one clear-eyed forum user put it: it's no different from leaving a CD collection outside with a sign saying "take me." And let's not forget that broadcasters and Webcasters pay royalties for the music they play.

Or, as some on the forums complain, if sharing is so wrong, how do libraries get away with it? Libraries lend books because society believes it's a good thing to share knowledge. But more to the point, the real world imposes limits on library users that don't exist in the digital domain. Libraries don't stream books; you borrow them. Books are cumbersome; you can't borrow or even carry very many at a time. They take more than four minutes to read and you probably won't read most of them more than once. And, significantly, you aren't allowed to make copies of library books, even if you are willing to spend the time at the photocopier.

Mac-oriented online forums are overflowing with comments about the demise of Internet streaming in iTunes, and it's no surprise that many Mac users are blaming Apple for caving in: "Apple is choosing to screw its customers and kowtow to the entertainment interests," complains one angry forum user.

Nonsense. Apple is kowtowing to its own interests, and rightly so. The company took a bold step into its future with iTunes, and it isn't about to be tripped up by the small group of Mac users who abused streaming. Apple is rapidly becoming a more diverse company and iTunes, the iTunes Music Store, and the iPod are at the leading edge. The coming expansion of the music store into the Windows world will be critical to the success of Apple's strategy, and it will require the cooperation of the music industry. This is business, folks. Apple has to deal with the people who have the music and those people get nervous if they perceive that a new door to piracy has opened. It's no coincidence that Apple's statement on the demise of iTunes streaming also noted that "…the mechanisms we put in place to secure (the iTunes Music Store) against theft are working well…there has been no breach of this security."

The music biz likes the iTunes Music Store and you can bet they'd like to see it work in the huge PC universe. Already, Apple has softened the industry's previously unwavering opposition to allowing customers any control over the music they buy. People want to own their music and enjoy it with minimal restrictions, and they will find a way to do that whether or not the RIAA approves. Apple's initial success with the iTunes Music Store suggests that most people will do the right thing when they are treated with respect.

But no matter how lenient the terms for buying and sharing, there will always be a core of miscreants that will steal music or, like the people who put links to their iTunes collections online, fail to understand that they have a responsibility to protect intellectual property. The music biz needs to come to terms with this reality. And the rest of us need to stop the

coy, wink-wink excusing and enabling of such behavior. On principle, I agree with the recent federal court ruling that the music downloading site Grokster is not liable for unauthorized music sharing by its users. But don't mistake the ruling for the court's endorsement of illegal file sharing. And seriously, does anyone really believe that the real mission of the music sharing sites is to promote your garage band?

By the time you read this, it's likely that hackers will have figured out how to do an end-run around the Internet streaming restrictions. Nate Mook notes on his [BetaNews](#) Web site that he's heard of "workarounds" already under construction that will "(fool) iTunes into thinking Internet traffic is originating from a local network." Don't be surprised if these shenanigans bring a knock on the door (or a battering ram through it) from Apple's legal eagles—the company is fiercely protective of its intellectual property. You could buy an whole lot of CDs for what it would cost to find out that Apple will protect its new franchise.

Sure, the iTunes Music Store is a wave of the future that might have arrived five years ago but for music industry intransigence. And how ironic that it's from the company which not long ago inflamed the music biz with a "Rip. Mix. Burn." ad campaign (see: "Only Nixon can go to China").

Stop and think about iTunes for a minute. How cool is it that this great software is also the front end to the first workable online music store and the best-selling portable digital player, and that, at least for now, all three work together seamlessly only on a Mac?

Let's not screw this up.

Next time: Whistling past the graveyard—Why Apple's iTunes Music Store will win.

Rupert Murdoch Owns a Mac

Well, at least he did, the last time I interviewed at 20th Century Fox. Now, trends being what they are, and trend lines sloping ever upward, for purposes of this and following rants in this column, we will assume the above to be true.

Look What $6 Billion Can Buy

If you're Steve Jobs, you "buy" Universal Music. If you're Rupert Murdoch, you make yet another bid for DirecTV. OK, he *actually* bought it for $6.6 billion, but you get the idea. What does one have to do with the other? Maybe nothing. Maybe everything.

There's this nebulous entity out there in cyberspace called the Digital Cinema Initiative. Companies have joined it. Companies have praised it. And yet still, a chosen few companies have indeed created it. (Insert appropriate ooh and ah sound effect here.) What is it, you ask? Well, a bunch of studio, and computer types got together and decided what was to become the standard for digital content. Of course, Apple may or may not have been invited to this party, and the same goes for the owners of the theater near you. If I read the signs correctly, it will cost $150K per theater to upgrade once a standard has been set.

Factor in the additional cost of the ever present technology rollover, or Moore's Law, as opposed to the 30K it costs to buy a standard film projector that will last decades. Then multiply that by the approximately forty thousand movie screens in the US alone, and that's a big number. Who gets the money? Or more importantly, who spends it in the first place?

The theater owners don't want to take on the additional expense, as they aren't really sharing in the profits of the new technology, as much as the studios that are pushing this onto them are. However, the studios don't want to spend the money to upgrade the theaters that they don't directly own. In either case moviegoers will end up paying for it at the box office, no matter who takes on the cost. If anyone ever does.

And what does DirecTV have to do with it, anyway? Well, some of the high-end theaters will be receiving the digital content via satellite. At this point, film would truly be dead. Actually, it almost is. Checkout the Quickstream DV[1] from the fine folks at MCE Technologies. Now, some may say that digital video may never truly replace film, however most of them are film snobs like Ebert and the other one, and their opinion for the most part can be discounted. You can hook up this drive directly to your DV camera, then plug it in to your latest and greatest Mac G4 complete with Final Cut Pro 4, download, and edit. Where's the film?

A question was asked of a cinematographer recently, and the guy said he wanted to know about film, because he wanted to be a *filmmaker* and not a "guy with a camcorder." Now, the cinematographer answered his question and, at the same time, stayed on the fence and gave a really great response about the wonders of being "the guy with the camcorder." Personally, I would've ripped into him and given the "keys to the kingdom" speech, which goes something like: "You have this wonderful opportunity to create, that not everyone gets, so, if you want a job here, in low budget land, you'll shoot on what I want you to shoot on…."

But I Digress

I've previously mentioned how things change both on and offline at the drop of a bit, so to speak, so I won't go into that now. However, strange things happened between the time I started this, and the time you read it. I mentioned above that Apple "bought" Universal Music. Now I read almost a week later that Apple is starting[2] its own online music service and Steve Jobs is on the cover of *Fortune* magazine with Sheryl Crow. Another sound magazine is talking about OS X, and if it's time to make the switch.

Without bogging you down in links, what I will say is that whereas before the theory was "Rip, Mix, Burn," it's now "Pay 99 cents per, Mix, Burn, and play on your iPod." At the same time, a ruling for summary judgement against two companies that supply software that may allow you to pirate movies and music didn't go[3] the way the MPAA and the RIAA wanted. This came as a surprise to almost everyone. Except for me.

1. http://www.mcetech.com/quickstreamdv.html
2. http://www.macnn.com/news/19276
3. http://zdnet.com.com/2100-1105-998363.html?tag=nl

Let's call a spade a spade and piracy what it truly is: copyright infringement. Takes the glamour off the word, if nothing else. While I strongly support the ability to buy a CD, rip it, and make it available to my closest friends, I do not support the outright stealing of intellectual property. Of course, the MPAA and RIAA have stated that they intend to appeal the decision, despite this setback. Look for this one to go all the way up the ladder to the Supreme Court, so it's definitely not over. Should it have begun in the first place? Long time readers know I believe this to be a losing battle. Copyright infringement existed long before there ever was an Internet, and it will continue to exist no matter what laws, rules, or guidelines are put into place now and in the future.

Convergence is Bad

Which brings me back to the original point that started this whole rant in the first place. The trend in both software and hardware is to make everything one thing. Currently, I have a phone that can take a picture, send an e-mail, browse the Internet, and play games. Oh, and I can call people on it as well.

My computer can do all of these on a bigger scale. A little known subdivision of DirecTV is DirecPC, which will hook your computer up to a satellite in order to do all of the above, and more—like video on demand. Alternatively, you might be able to do all of the above on your 56" HD TV. Personally, I want my phone to be my phone, my computer to be my computer, and my TV to be my TV. OK, I want my TV to be my movie theater with recordable DVD capability as well, but that's another column for another time.

By now you might be wondering what Rupert Murdoch has to do with all this. The answer is simple. He doesn't believe in convergence as a good business model. And he must be right, because Rupert Murdoch owns a Mac.

72 and sunny in Redondo Beach.

e you next time.

About This Particular Web Site

by Paul Fatula, pfatula@atpm.com

Stop Oppressive Gardening

"Thousands of Gnomes are enslaved in Gardens across America. For too long we have let our neighbors usurp the rights of these gentle woodland creatures." Amen to that! This site offers a way to report enslaved gnome sightings to the Garden Gnome Liberation Front for safe recovery. It also details the Executive Director's testimony before the Senate, and offers a campus outreach program.

Acme License Maker

Why commit a crime, get arrested, hire a lawyer, go to court, plead guilty, and go to jail when you can make license plates quickly and easily from the comfort of your own home? Simply select the state and year or plate design, type in your marker plate number, and voila.

52 Projects

This Web site offers thirty-eight numbered but not really ordered or organized projects you could engage in to cheer someone up or just create something artistic that you may not have thought of on your own. They make for good jumping-off points if you happen to be suffering from artist's block. (Hey, it doesn't just happen to writers.)

Behind the Name

This site offers a rather extensive, searchable list of common first names, categorized by nationality. Unless your name is exceptionally rare, you can likely find out how your name is pronounced and to which gender it belongs. You may also be able to learn the origin and history of your name (or of anyone else's).

Milk Bottle of the Week

"Here's where you will find some of the world's most bizarre, beautiful and sexy milk bottles." Not only can you find pictures of over 100 milk bottles, there's also a short history of milk bottles. Musical milk bottles, melted milk bottles, pictures of the Milk Bottle of the Week launch party, even a dream about milk bottles: this site has it all!

Copyright © 2003 Paul Fatula, pfatula@atpm.com.

Jumping Directly from OS 9 to Jaguar

Recently I decided it was time to bite the bullet and upgrade from Mac OS 9.2 to Mac OS X. I had been procrastinating due to my early experiences with OS X which were, shall we say, less than encouraging. The beta was frightening, and I wasn't a big fan of the first release either. I applauded Apple for pushing forward, and every application (operating systems included) must suffer that oh-so-buggy version 1.0 release. But that didn't mean I was about to install it on my computer and deal with the resulting chaos.

While I had not actually played with Jaguar, a number of folks I trust seemed enthusiastic about 10.2 and declared it a major improvement over previous releases. I was optimistic, and finally took a leap of faith. A little over two weeks ago I installed Jaguar on my G4 tower. A few days later, to my delight, I installed it on my TiBook. I am now running it exclusively on both of my main home machines—the Mac on my desk at work will be next.

I am pleased to report that the upgrade was relatively painless. I expected chaos, frustration, lots of cursing (those who know me well understand that I am at my most crude and vile when my computer refuses to obey my command) and other such nightmares. To be quite honest, unless my memory is failing me, I recall the upgrade from OS 8 to OS 9 being more problematic and fraught with angst. Several utilities stopped working such as ATM, and a number of extensions crashed on bootup, or otherwise created problems. Tracking them down was a nuisance (made easier by Conflict Catcher) and it took a while to get compatible replacements or upgrades in some cases.

Upgrading to Jaguar was, on the other hand, pretty much smooth sailing. There were some small adjustments to be made for sure. Some menu items had moved around, a lot of keyboard equivalents for menu items had changed (but using MenuMaster I changed them right back—so there!) But overall learning Jaguar is easy enough for all but the most green of Mac users.

And what surprised me even more was that once I had the latest version of OS X up and running, I found it to be far more mature than even the previous version. I finally believe OS X is ready for prime time. I don't see myself booting into OS 9 again any time soon, if ever. And I've been a curmudgeon, complaining about OS X being an abomination, since the beta release. I suppose I'll have to tone down my rhetoric a bit.

But not completely…

Don't get me wrong, I like Jaguar a lot—as I said, I like it enough to run it full time now. But it's not without its problems. So let's get right to the chase and get the gripes out on the table.

The Dock

I hate to come across as irate, but this thing drives me absolutely batty. I cannot stand it. I find it truly obnoxious, decidedly superfluous, painfully unintuitive, hopelessly unorganized, and generally counter productive. But let's not mince words…

My chief gripe with the Dock is that you cannot turn it off. There should be some provision for removing it altogether. But even if you could come up with a hack to ditch the Dock, you would not be in the clear. Apple has made it an integral part of the OS, and this was a big mistake. For example, if you ditch the Dock, what happens when you minimize a window?

Other software developers have nailed this sort of concept in the past—DragThing is an awesomely indispensable utility that I ran on all my machines under OS 9. But now it seems somewhat difficult to incorporate with the Dock stepping all over its toes. DragThing is still a vastly superior solution, particularly because it provides for multiple "docks" but also for a variety of other reasons I won't go into.

For example, when you try to drag and drop a file to the Dock so you can launch it with a specific application, the Dock starts rearranging itself to make room for the document on the Dock. This is not helpful behavior. As another example, the fact that the Dock constantly rescales itself and remains centered may seem cute but it's functionally braindead. It's never the same size, and nothing is ever in the exact same place as a result.

It would be ideal if you could segregate applications, documents, minimized windows, and open applications. But no…Apple has thrown it all together in one gigantic virtual depository (well, applications are separate). As a result, using the Dock as an application switcher is frustratingly pedantic.

Don't even get me started on the Dock notification behavior—having an icon bounce up and down like a digital jack-in-the-box is just plain obnoxious. There's no two ways about it: the only more obnoxious behavior I have ever endured on a computer is that horrific dancing paper clip courtesy of Microsoft. Apple should not be following Microsoft's lead in software development, particularly when it comes to interface design, and I am sure most ATPM readers can appreciate why this is so.

The other thing about the Dock that drives me up the wall is that it obscures the resize handles for windows that are sized to be full screen height. Again, this is indisputably braindead behavior.

File Suffixes

Apparently I am supposed to refer to them as "extensions" as if that somehow mitigates the fact that their use is a gigantic step backward. Yes I realize that most other operating systems use file suffixes as a manner of determining file "type," or at least associating files with applications. But it's an antiquated method of doing so, and it has been so for some time now. Apple's solution was infinitely more elegant, and functionally sound. What Apple has done with OS X is essentially join the throngs of unevolved lemmings who still use file suffixes. Note to Apple: just because you're now also doing something stupid doesn't make it any less stupid. In fact Apple's file "extensions" make for more headaches than the absence of them in years past. Now we have useless file suffixes like .colorpicker or .framework, etc. You get the picture. These are not going to translate to any other operating system smoothly. They will get truncated or otherwise be ignored. So what is the point? Let's just go back to using the type/creator paradigm which worked better on the Mac, and created no more problems on other platforms.

Now I do realize that for those of us who are forced to function in a cross-platform environment, dealing with suffixes is an unfortunate and frustrating aspect of our cyber-lives. But there has to be a more intelligent way of dealing with this issue than simply adopting file suffixes wholesale, and then ignoring fundamental rules such as the number of letters in the suffix.

No Application Menu

This gripe follows on the heels of the Dock rant. There should be an application menu, as there was in OS 9. Using the Dock to switch applications is contrived. More to the point, if you're like me and prefer to avoid using the Dock at all possible costs, you'd like to see another provision for switching applications. Yes you can cycle through apps using Command-Tab, but I'd like some visual feedback without resorting to the Dock (whose visual feedback is hardly discernible). I find LiteSwitch X to do the trick nicely. It provides a Windows-style (sorry!) application switcher that pops up when you hit a user-defined key combination (yes you can steal Command-Tab) and lets you resize, reposition, and customize the display style of this window.

No Apple Menu

There is no "real" Apple menu in OS X either. Yes it actually exists, but it provides little, if any, real utility. The Apple menu has been a source of somewhat heated debate since the beta. The reality of the matter is that as it comes, out of the box, the Apple menu is virtually worthless. Thankfully with a utility like FruitMenu you can customize it, add items to the menu, and enjoy hierarchical navigation of your files, as under OS 9. Thanks to FruitMenu I use the Apple menu all the time.

No Desktop Printing

I was sad to see Desktop Printing absent from OS X. For some users it may seem like a small point, but Desktop Printing was a great invention by Apple in my opinion. For those of us with multiple printers, it was invaluable. Under OS X the Print Center is a fine program, and it does the job. But I can't glance at my desktop anymore to see the status of a printer. Keeping the Print Center in the Dock provides some level of feedback, but if you have multiple printers it doesn't give you the same degree of feedback, and without launching it you can't easily manipulate jobs, or printers.

Then again some folks probably found Desktop Printing to be a nuisance and unappreciated use of desktop real estate. Fair enough—I think it should be an option. I always have felt that it should be, but under OS X it definitely ought to be the sort of feature you can turn on or off. If you have only one printer or simply do not care to have a printer on your desktop, use the Print Center exclusively. But some of us would like our Desktop Printing reimplemented, in addition to the Print Center.

No Internet Config

Another noticeable absence is Internet file mappings in the System Preferences. The only way to configure these mappings, as far as I can tell, is to use Internet Explorer. That makes very little sense to me, and it's especially bothersome if you don't want to use IE as your Web browser. Thanks in large part to the file extension gig, Internet file mappings have become even more important under OS X than they were before. How Apple managed to leave this configuration panel out of the System Preferences is totally beyond me.

No WindowShade

Minimizing can be pretty cool I must confess. Initially when Apple introduced the feature I thought it was a mere gimmick, especially because the emphasis was on how pretty it was, and how neat it was that the minimized window in the Dock was "live"—great, that's wonderful but does it add to my computing experience or just look cool? In truth I have found minimizing to be very useful and I enjoy being able to hide a window entirely without actually losing its contents. Simple enough—but sometimes I don't want to minimize, I want to WindowShade, as in OS 9. There's no way to do this…without WindowShade X, another great little add-on I enjoy because it still allows minimizing, but also enables WindowShade behavior, and also one other behavior which alters a window's opacity to a user-defined level. I am not sure how useful this last behavior is, but it looks cool and maybe some people will find it worthwhile. I'm just glad to have the WindowShade ability again.

Keychain Snootiness

The Keychain was another one of Apple's wonderful inventions that made our lives easier. Apple is great at this sort of thing—novices and geeks alike totally dig the Keychain. It just makes life so much easier, and provides an easy way to retrieve passwords we've forgotten. I was outraged to find that I could not import my OS 9 Keychain into OS X.

Let me rephrase that: I was outraged to find that after stuffing all of my passwords into a single file, that I could not take that single file with me to my new operating system. So in other words I have no access to those passwords unless I manually retype them into my OS X Keychain or use the Classic version of an application dependent on that password, which will pull the info from the OS 9 Keychain. That's really a boneheaded oversight on Apple's part. Guys—you invented the Keychain. It's not like I'm asking you to import some

obscure file format from the late 1980s created by a software developer now out of business. There is no good reason the OS X Keychain manager shouldn't be able to open up an OS 9 Keychain file and be in business.

The Finder

There are some folks out there on the Net who are going berserk over the new Finder and villainizing it as a travesty. I am not sure if I feel quite that strongly, but I will say that the new Finder is not much of an improvement over the OS 9 Finder in most respects. Overall it is an inferior design, and I wish Apple would have simply taken the OS 9 Finder, given it a facelift, and made it OS X–native. Instead they have done some pretty silly things, as have been discussed at length in a variety of well written articles.

I don't see the need to repeat these grievances or discuss them in depth but I will reiterate that the Columns view behavioral quirk is pretty braindead. The fact that you cannot change the font is equally so.

This does not mean that the new Finder has nothing to offer. I'll get to that later when I discuss the good stuff (had you fooled for a minute there—you thought this article was going to be all bad, eh?).

Power & Performance

The main impetus behind the development of OS X was the provision of modern memory management (real virtual RAM, memory protection, etc.) and improved performance (preemptive multi-tasking, better use of system resources, a fully native kernel, etc.) OS X does deliver on these promises, sort of.

Modern memory management is certainly there. You no longer have to allocate RAM to each application, which is nice. You also no longer need to concern yourself with how many programs are running, how many documents they have open, etc. Most importantly memory is protected, so if one program crashes or otherwise misbehaves it doesn't affect others, nor does it take down the entire computer.

Protected memory is a big plus, and a welcome and long overdue addition. But apart from that, modern memory management isn't really blowin' my skirt up. When you load up a bunch of applications and/or open a lot of documents, the computer still starts to get

pretty sluggish unless you have an awful lot of RAM installed. I have a gigabyte, which is sufficient for most tasks. But if you push the computer too hard, the swap file kicks in and then it's all over. So while you don't need to allocate RAM and aren't forced to quit one program to open another, you would still be advised to do so in many cases.

The solution to this is simply to pile on the RAM. It's pretty cheap these days and it can make an enormous improvement in performance. I wouldn't really suggest running OS X with less than a gig unless you tinker around most of the time and don't do much serious computing (in which case I applaud you for reading this far!)

On the performance end of the spectrum, OS X has a little ways to go. Carbon programs are, for the most part, slower than under OS 9. Not inordinately, insurmountably slower—but slower. Put a number on it? OK, 5–10%. That's arbitrary and totally unscientific. Sometimes it's subtle differences in speed, like a window taking a split second longer to appear under OS X. Other times it's actually more of a performance issue involving real "computing" as it were.

Classic is slower than OS 9 too, although I can understand that and frankly I have no beef with Classic. It works and it works surprisingly well.

But Carbon programs should run faster under OS X than OS 9. That they don't is one solid reason a lot of folks are not upgrading. If time is money and money talks, then by the law of transitivity time talks. Are you listening Apple?

File Organization

Due in large part to the multi-user nature of OS X, files can be organized in a somewhat cryptic manner. You cannot simply drag your System folder from one disk to another to create a bootable copy, for example. Also you will find a lot of duplicitous files and folders in the root and a specific user's folder. This can be very misleading for novices. I also maintain that for the vast majority of installations, multi-user capability is entirely unimportant. Yes it is useful for some environments and I am glad to see that OS X provides this functionality. But you should be able to turn it off, or at least make it more transparent to the user so that somebody with a lesser geek factor (smaller propeller?) isn't thrown off by the file system's organizational methods. This isn't a gigantic problem

or a major gripe, but it's worth mentioning. Finding files is not as straightforward as it was under OS 9, and that's not due entirely to the fact that users are accustomed to looking in a specific place.

Sheesh—Is There Any Good News?

Absolutely; I saved the good news for last so we could end the article on a high note. But being the painfully thorough gent that I am, I refused to simply affix my seal of approval on Jaguar without covering the handful of behaviors that drive me particularly nuts. Now, onward to greener pastures.

The Feel of Modernity

This is going to sound trite and goofy, but OS X feels like a modern OS. Using it is a delight in many ways as a result. It's not so much what OS X does but rather what it *doesn't* do that contributes to the overall enhanced user experience.

One thing it doesn't do that I particularly appreciate is allow an application to commandeer my computer. Under OS 9 I would constantly start cursing (see there I go again) at Internet Explorer while loading a complex page, or QuickTime Player loading or saving a large movie file, for example. These applications would take over the computer, rendering it useless for sometimes substantial periods of time. Now under OS X I can just switch into another application. Perhaps it will take longer for IE to draw that page, but I don't mind because I can go back to reading my e-mail or performing some other task. I also don't have to worry about whether IE actually crashed or whether it's simply taking a long time to draw a page (something it is very good at, especially when compared to the other Web browsers out for OS X).

The Look of Modernity

There are some other intangibles that make OS X seem more "modern," and many are aesthetic. The anti-aliasing of text, the shadowing of windows, the new fancy icons in the Finder, and the extensive use of opacity throughout the OS are all good examples of the generally more up-to-date look and feel of the OS. Do these things really, truly matter? Perhaps not at the most utilitarian level of computing, but they do enhance the experience of using the computer, and that is not to be trivialized.

The Mechanics of Modernity

So what is at the core of this "modern" OS that makes it so appealing? I've covered some of this already, but protected memory gets a big fat bag of brownie points. I like being able to load up a slew of applications without dealing with allocation. I didn't deal with it much before, but then again I have had a gig of RAM on my machines for the longest time being the super geek that I am. On a more fundamental level, the user really shouldn't have to concern himself with allocation, so it's good to see that we're moving into the 21st century with modern memory management on the Mac.

Pre-emptive multi-tasking that actually works is also a plus. This works pretty much the way you'd want it to, and the way it should. Applications crank along and play together without hogging the CPU, with remarkably few exceptions. The kernel also allows you to force quit an application safely if it should lock up or for some other reason start acting strangely. There's no need to worry about a force quit taking down the whole machine, or causing that application to be unstable if you relaunch it without a reboot.

Jaguar has been exceptionally stable on my machines. I have not had cause to reboot in over two weeks. I have also experienced very few unexpected quits or similar errors from applications, and have only had to force quit once or twice. The beauty is that these sorts of interruptions are far less intrusive or problematic than in the past.

Yes, all of these features should have been incorporated into the Mac OS eons ago. They weren't. Well now you can have them on your Mac. And guess what? It's pretty heavenly. These modern touches alone are worth the price of some of the nonsense I griped about earlier on, and I haven't even discussed the rest of the perks in OS X.

Da Net

While Carbon programs in general may not be as peppy under OS X as they are under OS 9, one thing is certain: network activity is much faster. Thanks in large part to its Unix roots, OS X sports much faster bandwidth when transferring data over a network. I don't have any hard data, but after two weeks of transferring files via FTP, HTTP, AppleTalk, Timbuktu, and practically every other protocol imaginable I have definitely observed at least a 10–15% increase in overall throughput. And latency seems to have been reduced—Web pages pop up faster, for example.

Mac OS X has traditional Apple File Sharing over TCP, Windows File Sharing, Web Sharing, FTP file access, printer sharing, and remote login. Best of all these services are easy to turn on and configure. Personally I am elated by all of these services because they really open up a world of possibilities for Mac users without installing all sorts of potentially expensive third-party software. Certainly there will still be a place for industrial strength Web servers and the like, but having most every network service accessible at the click of the mouse is definitely very nice and really helps to bridge the platform gap! The built-in firewall is similarly a welcome addition, as is Internet Connection Sharing.

I really like what Apple has done with the Network configuration panel. First of all, PPPoE is now built-in. Anybody who has had to deal with Mac PoET or EnterNet will dance around the room upon reading that last sentence. In addition, OS X allows for multiple connections to the Net. This is a very powerful feature that was lacking under OS 9. AirPort is also better integrated into the OS than before, and it also seems to be speedier than under OS 9.

Monitors

I appreciate that OS X can "Detect Displays" without a reboot, or in the case of a laptop without a sleep. A small point perhaps, but for those of us with laptops it is nice, especially since in the past we had to reboot in order to activate the S-Video output for projectors and the like—a sleep didn't cut it.

Full Keyboard Access

Another small addition I like, though I do not personally use, is Full Keyboard Access, which provides a facility for controlling the computer completely from the keyboard. There are a variety of circumstances in which this could be useful or essential, and it's nice to see that Apple had the foresight to include the ability.

Elementary My Dear

The new Sherlock in OS X is a big improvement over past versions. It is no longer used for finding files, or searching by content (more on that momentarily) but is instead something of an Internet portal. Personally I won't be using it that much, but for novices or users for whom the Internet is still a big and overwhelming place, Sherlock 3 provides a quick and easy way to accomplish a variety of basic tasks: booking airfare, translating between languages, checking stocks, buying movie tickets, or just searching the Web.

You can, of course, add channels as well. One channel, Calillona, searches Amazon. Even if you aren't a novice, these channels have their value: they are fast. It is definitely the case that searching via Sherlock 3's channels is faster than going into a Web browser, pulling up the appropriate page, punching in the query string, and awaiting the results. Because the channels ignore superfluous content (and hence don't present you with ads or popups, etc.) they are an efficient way to conduct certain Web-based activities regardless of your geek factor.

Hopefully They Won't Go on Strike

Thanks to packages in OS X, installing and uninstalling applications is for the most part a real snap. In many cases you can simply drag an application (really a package) onto your hard drive, and you're done. Uninstalling is equally straightforward. Sometimes an installer is required, and occasionally you will be advised to logout and log back in. But no more rebooting, and often times you can just drag a program over and start cranking away. Slick, simple, and painless.

FBC

No it's not a new television network—FBC stands for "find by content," a feature which was added back with the original Sherlock. Unfortunately FBC required that disks be indexed, and indexing took an eternity. Under OS X, indexing is at least an order of magnitude faster, if not more. I indexed my entire drive (same size drive as under OS 9, with all the extra OS X junk on it) in what seemed like about half an hour, in the background while goofing around on the Web. Also, FBC under OS X will index on demand as it searches. What all of this boils down to is a real, usable Find by Content. It's much faster, and the sort of feature you'll find yourself using much more frequently as a result.

Window Manipulation

As I mentioned in my gripes section, minimizing is a cool feature. Yes WindowShade provided some manner of keeping things tidy when oodles of windows were crowding the screen. But minimizing gets rid of the window altogether without losing its contents, and helps to keep things even tidier. At times, as I mentioned, I miss WindowShade but with WindowShade X I have the best of both worlds. And I do think that the minimize concept works very well with the Dock. If the Dock weren't so otherwise infuriating, or if there were a dedicated windows dock, I would be even more enthusiastic about

minimizing. The fact that you can move a window without making it active, can quickly zoom it to full screen, and otherwise manipulate windows in useful ways is also a plus. The toolbar hide/show button is also convenient as often times the toolbar is just a superfluity, but it's nice to have it available at the click of the mouse.

The Finder

Speaking of the toolbar, it's one of the additions to the Finder that I really dig. I like that I can add a folder, file, application, or virtually anything to the toolbar for quick and easy access, especially where dragging and dropping is concerned. It's smart, and customizable. I wouldn't mind a little more freedom in the customization department, but even as it stands it's pretty snazzy.

The Columns view, despite some counterintuitive behavior (such as letting you browse the same directory in two different windows) is otherwise a welcome addition.

Rendezvous

When Apple gets something right, they really get it right. There are times when the guys at Apple just make me want to scream because they seem so clueless. And then other times—most of the time—they make me feel genuinely proud to be a Mac user. Rendezvous is a classic example of how Apple makes our lives easier and how they "get" user friendly computing like no other. Novice and turbo-geek alike will appreciate that network devices seem to figure things out for you, thanks to Rendezvous which simplifies the process of setting up a network, printer, and communicating with others on a network. It doesn't remove any degree of flexibility in network configuration, but it can help to automate and simplify setting up one's computer or entire network. Admittedly not every printer on the market is Rendezvous savvy. That will come in time. But the concept is a good one, and it renews my faith in Apple's ability to make computing more pleasant for all of us.

iApps

It may be in large part because I cannot stand the sight of the word Microsoft, and generally feel that the world would be a much better place if the company were removed from the face of the Earth, but for some reason when Apple bundles all sorts of useful

applications with their OS it doesn't come across as forced or manipulative in the same way as it does when Microsoft insists that IE cannot be uninstalled from Windows, for example.

In any event, my point is that the applications Apple has included with OS X are, for the most part, great. Of course by now we are all familiar with iTunes, iDVD, and so forth. There are many others included with OS X, and while they aren't all total hum dingers, virtually all of them are useful, elegant, and well conceived. As the OS comes, out of the box, you can get quite a lot done and in fine style. And a lot of what you can do, you'd be hard pressed to do on another platform—in some cases at all, or at the very least without spending a pile of money on hardware or software. Apple has provided a consistent user interface for a variety of small applications that will really make life easier for novices. And even those of us who are geeked out appreciate the fact that we can burn DVDs with iDVD, rip MP3s and listen to Internet radio with iTunes, and organize all of our hot dates with geekettes (is that a word?) using iCal. The addition of Bluetooth support and inclusion of iSync makes life easier for those of us (myself included) who are so geeky that we can't stop using a computer for even one waking moment and carry Palms with us all day long.

So What's the Deal?

Where does all of this leave us? As I said I'm running OS X full time now, and enjoying it. Jaguar is far from perfect, but it's a gigantic improvement over previous versions of OS X. I have been using it for two solid weeks now without booting into OS 9 once, and I believe that for the vast majority of users Jaguar is ready for prime time use. I certainly could not have said that about 10.0 or 10.1!

Apple has some work cut out for them. For one thing, they have to get the speed up. OS X needs to run Carbon programs faster than OS 9. I'm not asking for miracles—I don't care about huge speed increases whereby OS X is twice as fast overnight, but let's get it faster than OS 9 so we can really move forward and give everybody an incentive to make the switch.

If I had my druthers 10.3 would allow you to turn off the Dock and let you minimize windows to another application like DragThing. This will probably never going to happen, but it would sure be nice if I could hide the Dock entirely with an F-key and bring it back when I need it to unminimize a window. Then I'd yank everything else off of it and use DragThing for program/document launching and LiteSwitch for program-switching.

Of course I'd love to see file extensions abandoned in favor of a more elegant and intelligent system. But that seems fairly unlikely as well. Never hurts to ask though…

Other than that, let me import my OS 9 Keychain, and fix some of the braindead Finder behavior. Many of my other gripes can be resolved with third-party utilities, which while not the ideal solution, provide some talented programmers with an opportunity to make a few bucks and strut their stuff, and allows Apple to focus on something more important than enabling hierarchical browsing in the Apple menu (like improving speed, etc.).

So I'm turning over a new leaf. Instead of bad rapping OS X at every opportunity I'm making an effort to spread good cheer and convert some of the stubborn OS X nay-sayers I used to call comrades. Do not worry, the Mac is as much a pleasure to use as before. If you doubt that, play with Jaguar for a week or two, and then tinker with a Wintel box. OS X has most of what you'd want from Windows or Unix, but it preserves a lot of what we love from OS 9. Sure some concessions were made, and I'm not 100% behind all the decisions Apple made. But OS X is more stable, and in many ways gets us past some of the baggage the antiquated OS was burdening us with.

I hate to sound like Mary Poppins, but I do believe that the future of the Mac is bright as ever if Jaguar is any indication. There are bound to be some bumps in the road, but if I am running Jaguar full time and enjoying it, there's no reason most ATPM readers shouldn't be too!

Getting the List of It

I hope you haven't missed me too much, and I apologize for taking such an extended hiatus over the last couple of months. Life has been busy lately, but I'm glad to be back so that we can continue on our journey into the wonders of building software.

In my last column I signed off by saying that we would begin this column with a series of tutorials that will actually build a complete application. However, I'm going to put that column on hold for a little while so that we can delve deeper into the mechanics of creating software.

Software writing is the act of translation. You have in mind what you want the computer to do, and you may even be able to describe it rather completely in English, but to get the computer to actually do the job, you need to translate this idea into a language the computer understands. Of course, the language of this series is AppleScript, so for the next few columns we'll begin investigating this process in more detail by building an object that may come in handy for later projects.

This time we're going to build a list object. AppleScript does include a list data type, and it will be the basis for our list object, but AppleScript's list has some serious limitations. There's no built-in method for sorting a list, and inserting an item into the list at some arbitrary point is by no means trivial.

Performing these operations on lists is common enough that building a list object that includes these and other methods will probably be useful later. Even if you never actually use the list object in other programs, the process of building the object will prove instructive.

First of all, let's define what we would want a list object to be able to do. As mentioned, it should be able to sort itself, and be able to insert an item anywhere in the list. We will also write our list object so that it can return how many members it has, return how it is sorted (ascending, descending, or none), return a member of the list by providing either an index

(i.e., the fifth item in the list) or return the index given a member. Our list object will be able to remove duplicate members and will be able to let us know if it contains a particular member or how many times a particular member occurs in the list. We'll provide the ability to remove an item by the index of the item or by naming the item. Finally, we'll be able to get the list itself or reset the list to a different list entirely.

As mentioned in the prior columns on object creation, we'll enclose the list object in a handler that will create an instance of the object. All methods that modify a list will actually return a new list object rather than actually change the contents of the list object. The only exception to this is the method for setting the list, which will actually reset the contents of the list.

Our final list will contain two properties. The first, and most obvious, is the list itself. But we'll also include a property that stores the current sort order of the list. This will make it much easier for us to determine how the list is sorted when calling code requests it. Without this property we'd have to actually create a sorted version of the list and compare it to the actual list to see what the sort order is. In keeping with the encapsulation ideal of object oriented programming, we'll provide methods for accessing both of the properties.

The version of the list object that we'll build in this column will assume that all the members of the list are either text or can be coerced to text. This is important for sorting, but in future columns we'll expand our list object so that other members can be sorted as well.

That's a lot of functionality for an object, and we won't get to all of it this month, but it is the complexity of the list object that makes it desirable to write. It will be easier to create this list object and use it in other software than to recreate these handlers each time we need them.

We'll build our list object from the outside in, beginning with a very basic list object that we'll add functionality to as we go. Here's the simplest version of our list object.

```
script ListObject
    property theList : {}
end script
```

This is a pretty useless object. It doesn't give us anything that a normal list wouldn't. The first functionality we'll add to this object is to enclose it within an initialization handler.

Before we create such a handler, let's think through how this will work. The `MakeList()` handler will accept a list to assign to the `theList` property. Such a parameter should, of course, be an AppleScript list, but we can, if we want, accept other data types. For instance, if a string is passed, we can coerce that to a list with a single item, so that `"some text"` would become `{"some text"}`. We can operate similarly if the handler is passed a real or integer.

Records are very similar to lists, in that they also store a series of values. Records can also be coerced into lists. For instance, `{itemOne:1, itemTwo:"two"} as list` evaluates to `{1, "two"}`.

Although we could have the `MakeList()` handler perform the chores of coercing these values into a list, such functionality may be useful for the object itself to have, so we'll create a new handler within the `ListObject` that does this called `Normalize()`.

Our assumption with the current version of this object is that the list will contain only strings, so after coercing our parameter into a list, we'll attempt to coerce each of the members of the list into a string. If this fails, we'll generate a custom error.

What if some other error occurs? Then we should pass this onto the calling code. Therefore, within the `on error` handler, capture the error message and error number in variables. If the error number indicates that something couldn't be coerced into a string, then we raise a custom error. Otherwise, we pass the error given using the `errMsg` and `errNum` variables.

Since the `ListObject` definition will exist within the `MakeList()` handler, and `MakeList()` will accept a list (or something coercable into a list), we can initialize the `theList` property to the parameter passed rather than an empty AppleScript list.

Now that we've clearly defined, in the English language, what our next version of `MakeList()` and `ListObject` are going to do, we need to translate those definitions into the AppleScript language. Here's one example of how this might be done.

```
on MakeList(newList)
    script ListObject
        property theList : newList
        to Normalize()
            if class of theList is record then
```

```
                set theList to theList as list
            end if
            try
                repeat with i from 1 to count of theList
                    set item i of theList to ¬
                        ((item i of theList) as string)
                end repeat
            on error errMsg number errNum
                if errNum is -1700 then
                    error "List cannot be normalized to list" &¬
                        " of strings." number 501
                else
                    error errMsg number errNum
                end if
            end try
        end Normalize
    end script
    tell ListObject to Normalize()
    return ListObject
end MakeList
```

Notice that I said this is "one example," rather than "the one and only way." In programming, there are always multiple ways to do things. If nothing else, we could have altered the order in which our nested `ifs` were placed. Rather than generating an error when a member of the list can't be coerced into a string, we could skip it instead. The point is, think through what you want to do, and then you'll more easily be able to translate the task into AppleScript or whatever language you move onto later.

Our `MakeList()` handler, excluding the script object, will now remain static for the rest of this column. The remainder of our edits to the handler will be additional methods (i.e., handlers) within the script object, so the future listings will display only the handlers we're working with. Simply insert these handlers within the script object.

The current version gets us a bit further, but we still don't have all the functionality that a normal list provides. In fact, since we want to keep the encapsulation ideal, we have less. AppleScript lists allow changes to a stored list, so the first method we'll add will be a `SetList()` method for resetting the contents of the list. Getting the list is simply a matter of referring to it, so we'll add a couple of methods for these two functions.

`SetList()` will be sent a parameter: the list to set our list object to. We could easily implement this `SetList()` handler by simply setting the `theList` property to the parameter passed, and then use the `Normalize()` handler to make sure it is in the form of a list and that the items in the list are strings. Here's how this might look.

```
to SetList given listToSet:newList
    set theList to newList
    Normalize()
end SetList
```

What will happen if the `newList` parameter isn't valid? `Normalize()` will generate an error, and the `theList` property will be in an intermediate state because it was never allowed to finish the job.

What should we do about this possible problem? If it occurs, we should restore the `theList` property to its original state. To do this, we need to first store it in a temporary variable, perform the actions needed. If an error is generated, we can then restore the list to the state it was in when the handler began execution. Here's the final version of `SetList()`.

```
to SetList given listToSet:newList
    set tempList to theList
    try
        set theList to newList
        Normalize()
    on error errMsg number errNum
        set theList to tempList
        if errNum is 501
            error "List cannot be normalized to list" & ¬
                " of strings." number 501.
        else
            error errMsg number errNum
        end if
    end try
end SetList
```

Notice that we generate the same error that would have been generated by `Normalize()` if we hadn't included the call to it within a `try` block. The error that could be raised by `Normalize()` is known to us, so we raise the exact same error that `Normalize()` would have raised.

Notice that we're using the labeled parameter version of AppleScript's handler syntax. This is simply to provide additional experience with this syntax. We could just as easily have used `SetList(newList)`. We're using the `given` version of the labeled parameter syntax because I find it much easier to read calls the handler when this is the version used.

Our `GetList()` handler is much simpler. It isn't provided any parameters, simply returning the AppleScript list stored in `theList`. We don't need to do any error checking, so the method contains a single line of code.

```
to GetList()
    return theList
end GetList
```

AppleScript lists also have the ability to report how many members the list has. We need to provide this ability also, again with a simple handler that takes no parameters since the only data it needs is within the object itself.

```
to MemberCount()
    return count of theList
end MemberCount
```

The final bit of built-in list behavior that we'll duplicate is extracting an item given its index. As a reminder, in a list containing `{1, "two", 3, "four", "five"}`, `item 5` of the list is `"four"`, while `item -3` of the list is `3`. Our list object won't be able to refer to the members of the list so simply, but we will be able to duplicate the functionality fairly easily.

Let's write a first version and then consider what the consequences of the handler are.

```
on ItemX given theIndex:x
    return item x of theList
end ItemX
```

This handler will do the job, but it takes a parameter and doesn't error check the parameter. There are two possible errors. If `ItemX()` is passed a value of `0`, then AppleScript will attempt to get the 0th item of the list, which isn't possible. `x` can be negative, so we don't need to worry about that. However, what if the absolute value of `x` is greater than the number of members in the list? Using our list in the paragraph above, which has five members, what if `ItemX()` is passed a value of `-9` or `7`? AppleScript will generate an error at this point as well.

We now have two choices. We can either leave the handler as it is and let AppleScript do the error checking for us, or we can check for the possible errors ourselves. In the interest of consistency, we'll go ahead and check for the errors ourselves. We're already checking for errors whenever a handler is passed a parameter, so let's stick with that practice. Below is our new version of the handler.

```
on ItemX given theIndex:x
    if x is greater than MemberCount() or ¬
        (x * -1) is greater than MemberCount() or ¬
        x is 0 then
        error "Invalid index passed to ItemX()" number 502
    else
        return item x of theList
    end if
end ItemX
```

You may have noticed that we're using `MemberCount()` rather than `count of theList`. In this case, the two are equivalent. However, using `MemberCount()` has the advantage that if we ever decide to change how the internal list is stored, perhaps using a return-separated string property, then we can simply change how `MemberCount()` works and then this handler will work without modification.

We're going to stop here until next month, when we'll continue modifying our list object. So far, all we've done is make more work for ourselves, since everything we've provided for our list object has been a duplication of the built-in functionality of an AppleScript list. However, I hope that working through the process of building the list object is educational for you, demonstrating the thought process that goes into building software.

Next month we'll move beyond the AppleScript list, adding the ability for a list object to return a sorted version of itself, as well as get the index of an item given its contents. Until then, happy programming!

Tips—Getting More Out of Your Mac

Thanks Again

Well, it's hard to believe that I'm not doing a fourth part on LPs to CDs. The way it was going, I thought I was never going to complete that beast. Now that it is over, I want to thank our readers for all the kind words I received with the completion of part three. Yet, if it were not for the patience of my editor, Michael Tsai, part three may not have gone to press till this issue. Way past our normal deadline, burning the midnight oil, Michael and I hashed out and smoothed over parts of the article that still needed work. So thanks, Michael.

Tips

Instead of doing my usual utility roundup, I thought I would do a few cool tips for your Mac.

System Preferences Toolbar

We all know that you can modify the Finder window toolbar by selecting Customize Toolbar… from the View menu. You can also customize the System Preferences toolbar as well. All you have to do is drag a given preference (i.e. Sound, Screen Effects, Login Items, etc.) to the toolbar and let go. If you decide that you want to remove one, simple drag it off the toolbar. You can also apply this same technique to any Finder window.

Multiple Finder Windows

When I made the switch from OS 9 to OS X, the one thing that drove me crazy was the single Finder window mode. Every time I tried to navigate backwards in a window's history, I would hit the Close button instead of the Back arrow. After working on Macs since 1984, I was used to opening a new window when I double-clicked on a folder. As I was exploring OS X, I opened the Preferences… under the Finder menu. To my surprise, a selection said "Always open folders in a new window." Once selected, I felt right at home

as I navigated from one folder to the next. After making the change, I then chose Customize Toolbar… under the View menu and removed the forward and back buttons permanently.

SuperDrive for Old Macs

If you bought a G4 tower any time from 1999 to 2002, odds are that you do not have a SuperDrive in it. If you were to call Apple about it, they would say that they could not promise that your Mac would support adding one. This is because there is a chance that the Apple digital hub software may not work with the drive.

The only thing is that you must replace your old drive with a Pioneer (model 105 or 104). All SuperDrives built into current Macs are built by Pioneer. Only these drives will be recognized when placed in older Macs. I have a friend who has an old Power Mac G4 (AGP Graphics) from 1999. He placed a Pioneer 104 SuperDrive in his Mac, and his machine had no trouble recognizing it. I bought a Pioneer 105 (the drive that shipped with the latest Mirrored Drive Door models) for $202 and installed it myself, as a technician friend of mine guided me. Although I do not own iDVD, I did find that Disk Copy and Roxio Toast recognize the drive and operate perfectly.

In reality, installing one of these drives turned out to be rather simple. All you need is a Phillips screwdriver to do it with. First, you unscrew the three screws that hold your old drive in place. (Note: this may vary from Mac to Mac. These directions are based on my QuickSilver model). Carefully pull the cables from the back of the drive. Then remove the drive and unscrew the screws holding the drive to the sled. Push the drive from the back to the front and completely remove it from the sled. Slide the new drive into the sled and screw the screws back into place. Attach the cables to the back of the drive. Bear in mind that if you do this you will be violating your warranty. If any of this makes you nervous, then I strongly recommend that you let a computer technician do the work for you.

A newsletter called dealmac puts out a list of the best bargains for the Mac each day. I found my Pioneer 105 for $202 in the daily dealmac newsletter. Since then, I have seen it as low as $180. This is for what is called a bare bones unit. That means all you get is the

drive. Since you already have all the other parts, there is no reason to buy the full retail package for about $400. There are other things you can do to give your old Mac new life, but that's a whole separate article. End of line.

Copyright © 2003 Robert C. Lewis, rlewis@atpm.com*. Robert is a Mac consultant.*

MacFest 2003

We all know about the Macworld Expo conventions that occur in San Francisco and New York. Well it seems that many user groups have started to hold mini conventions of their own. On April 26, 2003, the Houston Area Apple User Group had its first such convention, called MacFest. (Its Apple Barrel newsletter has more coverage.)

Close to eighty people came to the event. I was one of the sponsors. With laptop in hand and different utilities, I helped HAAUG members with non-working Macs and general questions about problems our members were having with their machines.

George McKenzie, Robert Lewis, and a HAAUG member work on members' Macs.

From 9 AM to 4 PM, people had a chance to attend three different workshops. Two of the workshops dealt with Microsoft Office v.X led by Bethany Mitchell and a presentation on the latest features in Photoshop 7 by Isabelle MacCrimmon.

Bethany Mitchell leads the Microsoft Office seminar.

Isabelle MacCrimmon leads the Photoshop seminar.

The keynote of the event was led by none other than Dr. Mac, Bob LeVitus. Bob spent the day talking about what he considered his favorite utilities. Some of these utilities included FruitMenu, LaunchBar, DragThing, and Carbon Copy Cloner. In addition, he discussed the

importance of backing up your critical data, how to get the most out of OS X, and why it was time to get on the train and make the switch from OS 9 to OS X. Bob has been a member of our group for about 15 years and does a main presentation at here each December.

Dinner with Dr. Mac (left)

I was on the committee for the event. Being on the committee gave me a chance to dine with Bob the day before the event. Sitting side by side with him gave me the unique chance to see what a great person he is.

At the end of MacFest came the door prizes that I had been worked very hard to get for the event. We had prizes from Logitech, MacSoft, MacPlay, Kensington, Symantec, and Freeverse to give to the lucky people who came that day. One way or another all those that came to the event left with great satisfaction.

As I said earlier, these types of mini conventions are starting to pop up in different cities. If you belong to a user group, next time you have your main meeting, why don't you suggest to the powers that be to have one of your own? We learned a great deal this year about how to do it, and I look forward to MacFest 2004.

Copyright © 2003 Robert C. Lewis, rlewis@atpm.com. *Robert is a Mac consultant.*
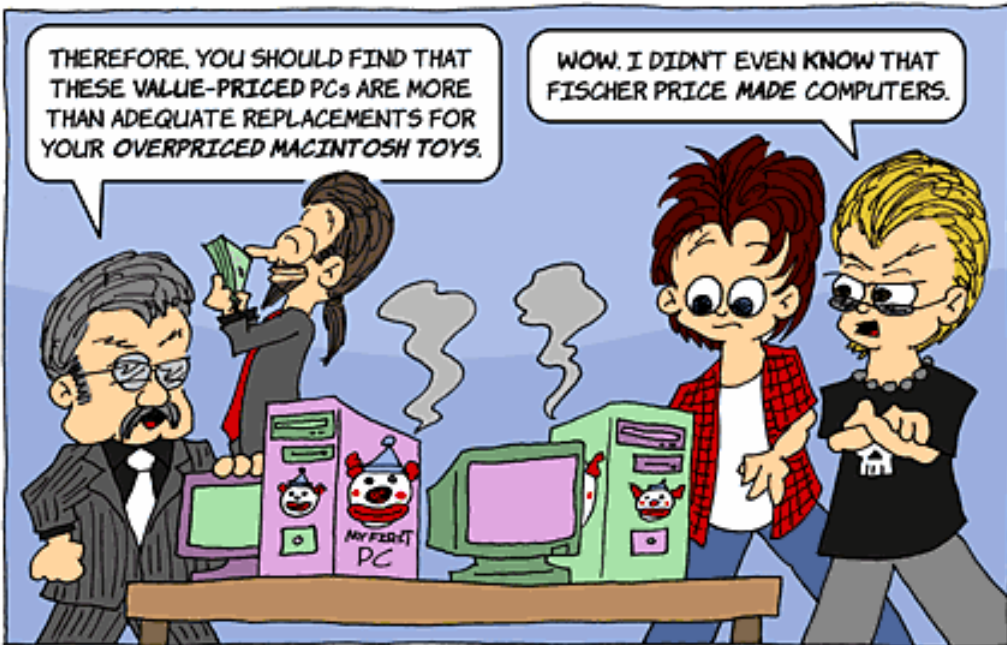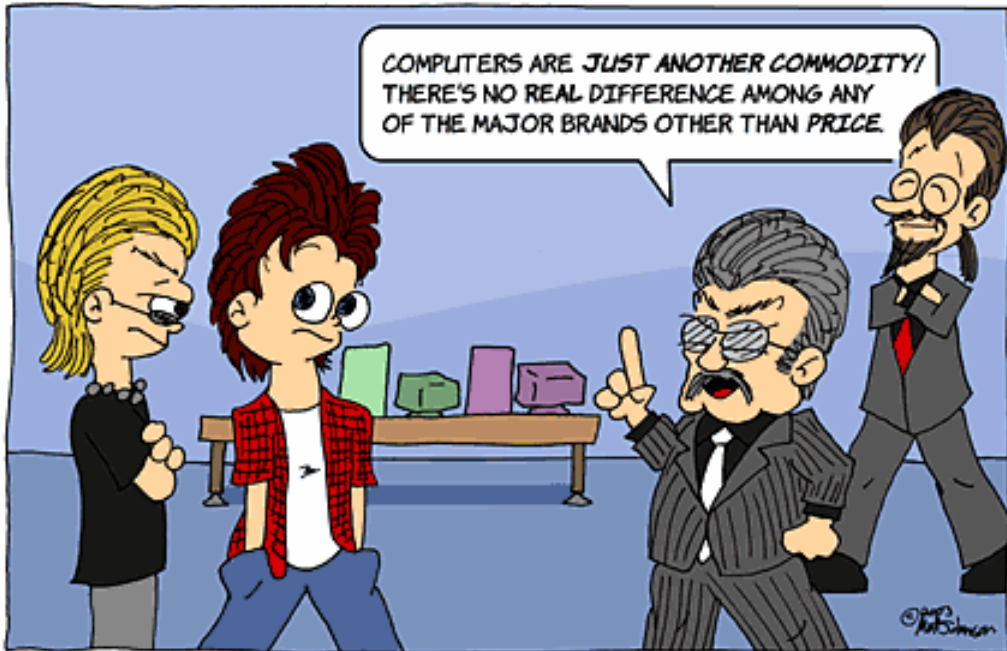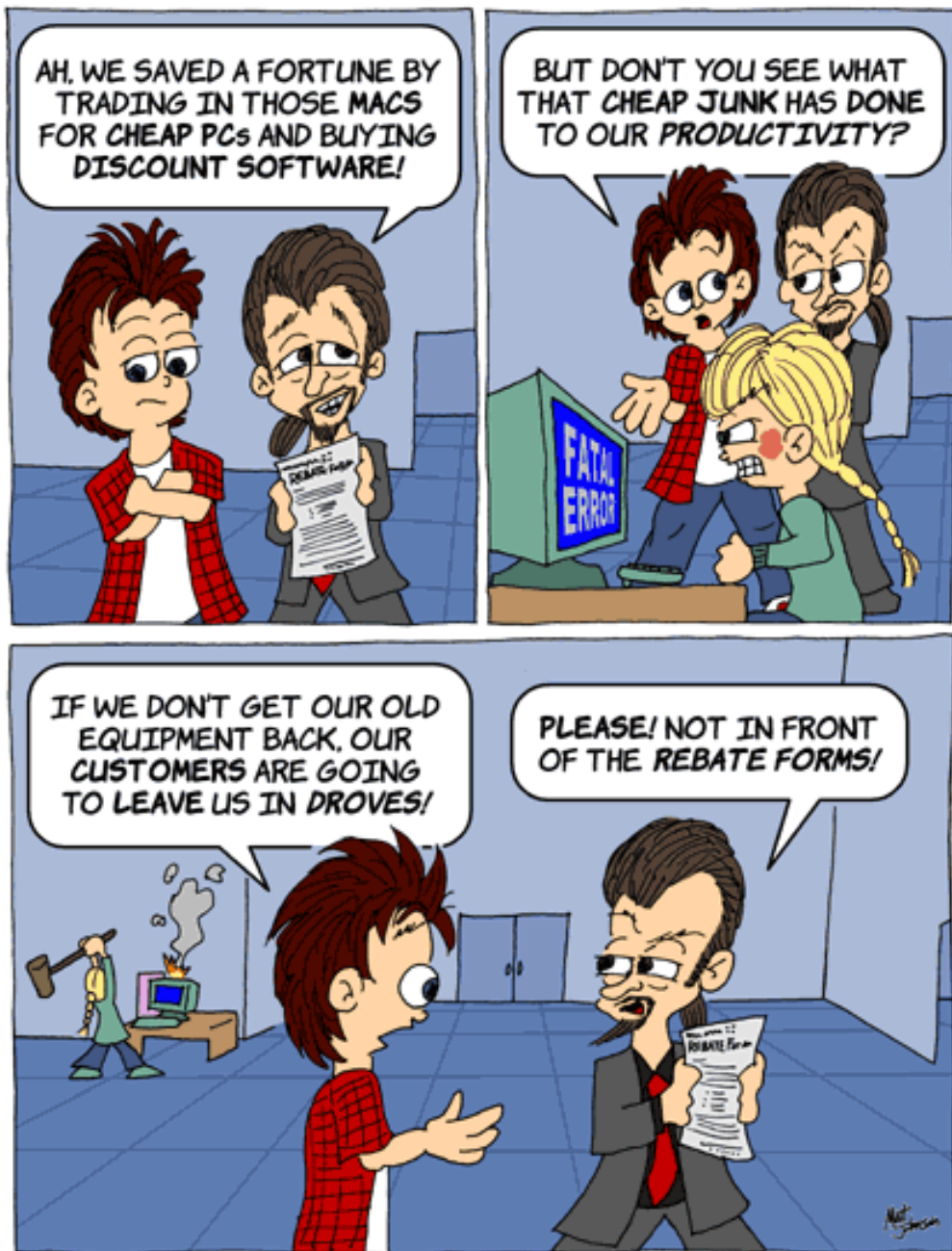
Landscapes

Landscapes

The pictures presented here are the first in a series from ATPM reader [Katherine Sears-Lent](). She writes:

When I moved to Savannah from New York last year, I got a better digital camera (an HP Photosmart 315). I know it is a cheap camera. Now I am expecting another baby so I am shopping around for a better one. I heard that the key to taking reasonably good pictures is to take as many as possible, so I use a 128 MB CF in my camera! I use iPhoto on a 1 GHz Titanium PowerBook.

I mostly enjoy pictures of close-up leaves and flowers and landscapes.

Many of the pictures are from Savannah, GA. Some are from the downtown area, (interesting compositions I see around—particularly of old places). There are pictures of Marshlands and Oaks dripping with Spanish moss taken at Oatland Island Nature Preserve in Savannah.

Some of the landscapes are from Calloway Gardens, GA. They have a butterfly aviary there and lovely orchids and other flowers.

Some of the flowers and one of a grape orchard are from Sonoma Valley, CA during a day of winery tours.

There are a couple with snow, and one out on the water that were taken on Long Island NY, and some flowers and foliage in Tampa, FL.

Previous Months' Desktop Pictures

Pictures from previous months are listed in the [desktop pictures archives]().

Downloading all the Pictures at Once

iCab and Interarchy (formerly Anarchie) can download an entire set of desktop pictures at once. In iCab, use the Download command to download "Get all files in same path." In Interarchy, use HTTP Mirror feature.

Contributing Your Own Desktop Pictures

If you have a picture, whether a small series or just one fabulous or funny shot, feel free to send it to editor@atpm.com and we'll consider publishing it in next month's issue. Have a regular print but no scanner? Don't worry. E-mail us, and we tell you where to send it so we can scan it for you. Note that we cannot return the original print, so send us a copy.

Placing Desktop Pictures

Mac OS X 10.1.x and 10.2.x

Choose "System Preferences…" from the Apple menu and click the Desktop button. With the popup menu, select the desktop pictures folder you want to use.

You can also use the pictures with Mac OS X's built-in screen saver. Choose "System Preferences…" from the Apple menu. Click the Screen Saver (10.1.x) or Screen Effects (10.2.x) button. Then click on Custom Slide Show in the list of screen savers. If you put the ATPM pictures in your Pictures folder, you're all set. Otherwise, click Configure to tell the screen saver which pictures to use.

Mac OS X 10.0.x

Switch to the Finder. Choose "Preferences…" from the "Finder" menu. Click on the "Select Picture…" button on the right. In the Open Panel, select the desktop picture you want to use. The panel defaults to your "~/Library/Desktop Pictures" folder. Close the "Finder Preferences" window when you are done.

Mac OS 8.5–9.x

Go to the Appearance control panel. Click on the "Desktop" tab at the top of the window. Press the "Place Picture..." button in the bottom right corner, then select the desired image. By default, it will show you the images in the "Desktop Pictures" subfolder of your "Appearance" folder in the System Folder, however you can select images from anywhere on your hard disk.

After you select the desired image file and press "Choose," a preview will appear in the Appearance window. The "Position Automatically" selection is usually fine. You can play with the settings to see if you like the others better. You will see the result in the little preview screen.

Once you are satisfied with the selection, click on "Set Desktop" in the lower right corner of the window. That's it! Should you ever want to get rid of it, just go to the desktop settings again and press "Remove Picture."

Mac OS 8.0 and 8.1

Go to the "Desktop Patterns" control panel. Click on "Desktop Pictures" in the list on the left of the window, and follow steps similar to the ones above.

Random Desktop Pictures

If you drag a folder of pictures onto the miniature desktop in the Appearance or Desktop Pictures control panel, your Mac will choose one from the folder at random when it starts up.

DeskPicture

An alternative to Mac OS's Appearance control panel is Pierce Software's DeskPicture, reviewed in issue 5.10 and available for download.

Review: d2 External FireWire CD-RW Drive

by Dan Boland, dboland@atpm.com

Developer: LaCie
Price: $150
Requirements: G3-based Mac with built-in FireWire and 64 MB of RAM.
Trial: None

The next generation of high-speed optical drives has arrived with LaCie's newest—the d2 External FireWire CD-RW drive.

Sporting a sleek new look, this lightweight drive clocks in with blazing 52x24x52x speeds (that's 52x read/24x rewrite/52x write to the laymen out there). The power button is conveniently located on the front of the drive in a brilliant shade of blue.

While the new benchmark in burning speed is impressive, the full potential of the drive can only be realized if the burning software and CD can handle a 52x write speed. Luckily, the d2 comes bundled with Toast Lite 5.2, which supports 52x drives; and SilverKeeper 1.0.1, a handy little backup utility (in a nifty CD case, I might add). For those less technically inclined, LaCie also ships out a CD full of user manuals for its optical drives. There is even a blank CD optimized for 52x-speed optical drives thrown in for that first burn.

And how did that turn out? Pretty well. Using Toast Titanium 5.2.1 (which I highly recommend over Toast Lite), it took four minutes to burn 600 MB of data from start to finish, two and a half if you cut out verification.

There are two extremely minor issues with the d2. The first is that it is too long to sit on my tower like my old one did. And the second is that while burning, it isn't whisper quiet (though it isn't loud, either). But these problems are so minute, they take nothing away from the experience of using this drive.

At a reasonable price, this speedy drive will make anyone who burns CDs extremely happy with the results.

Review: FAXstf Pro 10.0.1 & Page Sender 3.0.1

by Ken Gruberman, kgruberman@atpm.com

FAXstf Pro 10.0.1

Developer: Smith Micro Software, Inc.
Price: $90 (download); $105 (boxed)
Requirements: G3-based Mac with Mac OS X 10.2, 30 MB available RAM.
Trial: None

ATPM RATINGS
ROTTEN

Page Sender 3.0.1

Developer: Smile Software
Price: $30 (download)
Requirements: Mac OS X 10.1.3.
Trial: 20 documents or 30 days

ATPM RATINGS
EXCELLENT

David Faxes Goliath

Something I've complained about for years is the lack of competent fax software for the Macintosh. If you're an OS X user, however, I'm glad to report all that has changed thanks to the existence of a beautifully crafted shareware program called Page Sender 3. That's right, I said shareware.

I recently had a great opportunity to find out just what the software was made of when I was forced to field test it, along with a more expensive and better known fax product. The results shocked me, although in a positive way.

Sleepless in Spokane

Last month I spent a couple of weeks in Spokane on personal business. I knew I would also have to do some music work while there. (In addition to my Macintosh consulting business, I have been a professional music copyist and orchestrator for decades.) I have been working on an album project for the last couple of months, and discovered, right before leaving for Spokane, that string sessions had been scheduled for the following week. The only logical solution was for the arranger in Los Angeles to fax me his arrangements, and I in turn would produce the parts for the string players and FedEx them

back to him in time for the sessions. I had taken our trusty G4 Titanium PowerBook that had my music software on it, and also sent up a spare HP 4MV tabloid-size printer, proper heavyweight, music-sized paper, and plenty of Scotch tape. The success or failure of the endeavor rested, however, solely on the abilities of the fax software I would use.

Too bad I'd never tested any of the programs before I left! In my haste to get ready for the trip, I didn't have the time. The thing is, since I have a dedicated fax machine here at the house, I have never needed a software-based fax program. I've flirted with them over the years and disliked all of them: now, my professional reputation would be tied to how well they worked (or not).

I had brought with me installers for two different fax programs for OS X. The first was the highly-touted FAXstf Pro from Smith Micro; the second was Page Sender. I reasoned that FAXstf Pro would be fine, as the product in some form or another has been around since the beginning of time. Of course, I had detested the software for about as long, but for some reason the eternal optimist in me believed the Pro version would be a different story. Now OS X–native—our Titanium PowerBook was always in OS X except when running my OS 9–only music software—FAXstf Pro had been widely advertised as the "professional solution!" for OS X faxing.

I downloaded both installers and purchased license keys for both before leaving (it's a tax write-off, don'tcha know), and had them both on the hard drive. After arriving in Spokane and making sure the phone line was okay, I installed FAXstf Pro and went about the business of setting it up.

Wrong on So Many Levels

To save you the pain, I won't go into every excruciating detail of why FAXstf Pro was so bad. Instead, I will just cover the highlights of my thankfully short experience with it.

Actually, there's only one fact that matters—the "big deal-breaker"—and everything else is just window-dressing: *the software did not receive faxes properly*. I had set up and configured FAXstf Pro correctly, and successfully received the initial arrangement from Los

Angeles. Per my request, the arranger had written everything out on standard letter-sized paper with a set of five double-staff music systems on each page, which was fine for writing a string arrangement in sketch form.
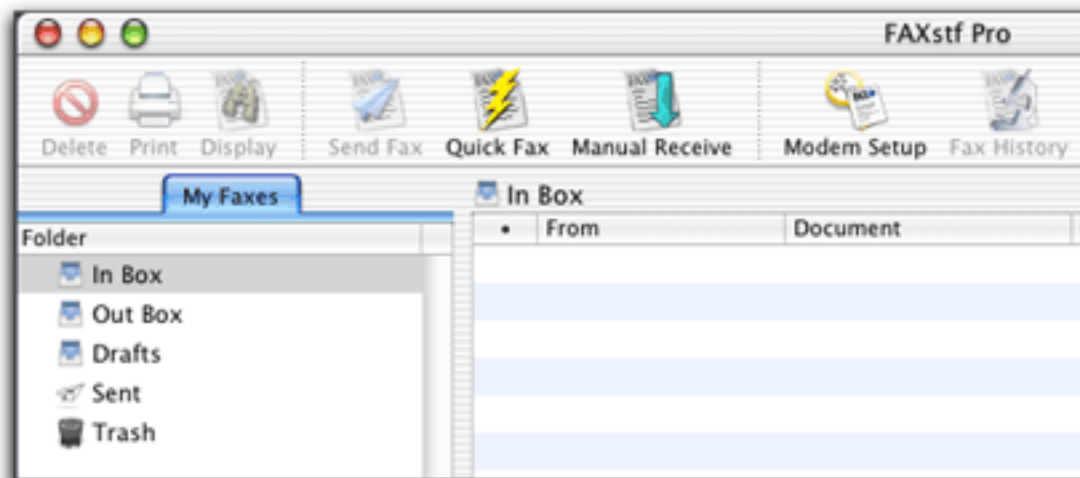
The FAXstf Pro Browser window looks simple to use, but soon fills up with multiple tabs and sub-windows.

Even though the left and right margins of each page were somewhat truncated, I could still figure out what was supposed to be there, and got to work on the arrangement. I was about an hour in when the pit of my stomach clenched as I realized the bottom system from each page was *missing*. As in "not there." I called the arranger in L. A. and he confirmed my suspicions. Not only was a good inch and a half absent from each page, but other elements were gone as well. I thought maybe his fax machine was not properly configured to auto-reduce each page to whatever the "faxable area" for his machine was, but he said it was configured properly. I realized this was true because I'd never had a problem with his faxes back home. (Fax machines, when they talk to each other, usually determine when or how they should expand or reduce an image to fit on whatever paper is in the receiving fax machine.) I was forced to ask him to re-fax the same pages again, this time turned upside-down; I then had to work off two copies of the arrangement to get the job done.

A quick check of the [feedback page](#) for FAXstf Pro at VersionTracker revealed I was not alone. Scads of people were griping about the same problems I had encountered (along with many others), and had little praise for the software.

Concise Compendium of Misery

Here's a bullet-point rundown of the rest of the problems I found with FAXstf Pro, along with some observations:

- FAXstf Pro costs $89.95 for an [electronic download](#) or extra for a physical shipment.

- Getting rid of the program was as painful as using it. FAXstf Pro's Installer application does not have the ability to uninstall, and there is no mention of it in the ReadMe file. Searching for the topic on the Smith Micro Web site revealed an intricate way of removing all the various components by hand.

- The Preferences window has five icons, each of which has its own Save or Apply Now button. There is no way to set all the preferences at once and then save them with one click.

- Creating and modifying cover sheets is cumbersome and unintuitive, and can only be done in the Preferences window; there is no separate menu item.

- No way is provided to easily import addresses from previous versions of the FAXstf Phonebook to Apple's Address Book, which is what FAXstf Pro now uses. There isn't even a mention of it in the Help file, although again the solution is found on the Web site's Support area. You have to export the old data as tab-delimited text from your old FAXstf phonebook, then—get this—download a *separate* utility from Smith Micro that is not included with the FAXstf Pro installer, and use it to import the data into the Apple Address Book because it doesn't support tab-delimited text. Considering how long FAXstf has been around on the Mac, this is unforgivable.

- FAXstf Pro uses its own proprietary graphics format to create and receive faxes. To use faxes in other applications, you must export them. The program can save faxes as PDF or TIFF files. As I wanted to work with both the PDF file and my music software at the same time, this meant I had to waste time exporting the faxes as PDF files first.
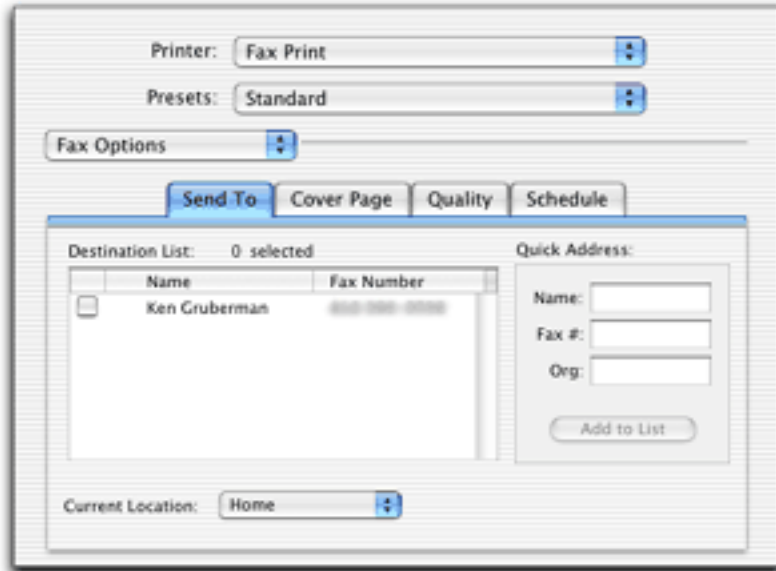
Creating and sending a fax in FAXstf Pro is a daunting task, with a plethora of choices thrown at the user.

To be fair, there are a few positive things about the program: it's probably good for use in large companies or multiple user situations. It can create cover sheets with company logos, etc., and it can export faxes as "Bundles" for backup or archiving purposes; the Bundles contain an entire history of a particular fax exchange between sender and receiver. However, the negatives far outweigh the positives, and overall I cannot recommend the program to anyone for any reason.

Ladies and Gentlemen, We Have a Winner

For the next arrangement, I would try Page Sender. I could have saved myself a lot of grief if only I'd seen this quote from Page Sender user Scott Rose: "This incredible shareware program puts FAXstf to shame! I couldn't effectively switch to Mac OS X until a reliable fax program was released, and now we have one. Cheerful responses within 24 hours to technical support e-mail too."

After removing all traces of the now-reviled FAXstf Pro, I installed Page Sender 3.0.1, and right away I noticed something different: Page Sender uses the popular Installer VISE installation method, which includes a dedicated "Uninstall" function right in the pop-up menu. If I needed to, removing the program would not be a hassle.

The next thing that struck me was how clean Page Sender's interface was, compared to the previous fax program. In addition, I was overjoyed to learn Page Sender uses PDF technology throughout the program. Incoming faxes appear as PDF files automatically, and sent files are converted to PDFs before sending. Cool! Now I wouldn't have to waste time converting files into the format I wanted.

Setting the program's preferences couldn't have been easier, and I was thrilled to find that Page Sender supports several well-known e-mail clients (Eudora, Entourage, Apple Mail, even Claris Emailer) and personal information managers (Palm Desktop, Now Contact, Apple Address Book) so there was no need to get fax phonebook info into *anything*. Page Sender also supports "live addressing" from most of these applications, so there is no need to open them first or bother with copying, pasting, or importing.
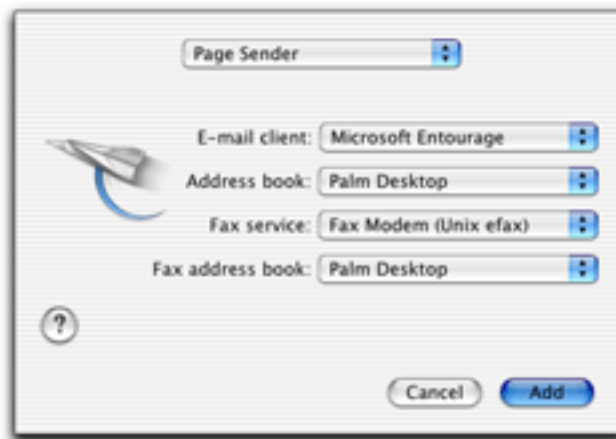
Flexibility is the name of the game when it comes to setting up Page Sender. You can use it with a wide variety of e-mail clients, address books, and PIMs.

After setting up and configuring the program, the moment of truth came as I started receiving the next fax from Los Angeles. I let out a sigh of relief as each page appeared, perfectly formed and eminently readable. Not only were all five systems on each page, the

margins were correct as well, with nothing cut off or garbled. Keep in mind the document was sent from the same originating fax machine using the same settings…what a difference! The icing on the cake? Page Sender was also faster at receiving faxes than FAXstf Pro.

The Best of the Rest

If there are any shortcomings to Page Sender, I couldn't find them. Well, perhaps one quibble—you still can't choose the fax resolution. It sends out in "Fine" mode by default, although I understand "Standard" mode will be added soon.

Page Sender creates a fax the same way FAXstf does, by installing a Fax Printer into the OS X Print Center. You then add it to the Print Center and from then on Fax Print appears as a printer choice in print dialogs. There are the same options available for sending a fax, attaching a cover page and such, but they're simply executed better.
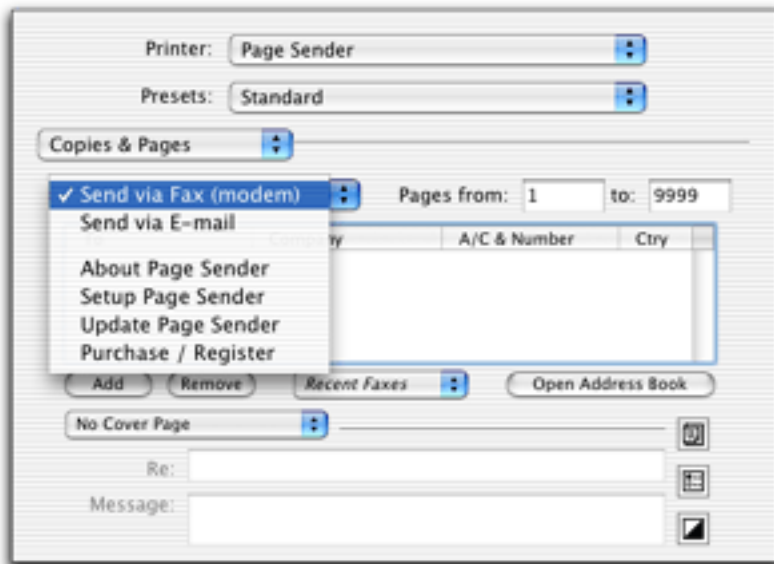
Creating and sending a fax in Page Sender is easy because all relevant choices are grouped in one place.

Here are some other notable features of Page Sender:

- The program only costs $29.95 as an [electronic download](#)—no physical shipment is available (or needed from what I can tell). The program can also be purchased by phone, fax, eSellerate…or from within the program itself, once it has been downloaded and installed. Until that time it runs in demo mode for 30 days.

- The hub of Page Sender is called the Fax Center, which features a cleaner, less cluttered interface than FAXstf Pro and is modeled after Apple Mail. The Center allows you to enter a station name as well as a number for Fax Headers; FAXstf still only allows numbers.
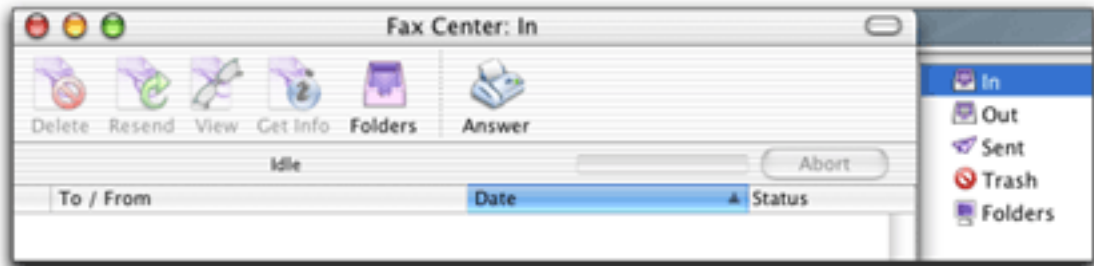
The Fax Center is the hub of Page Sender, and resembles Apple's Mail program.

- There are more options for what to do with sent and received faxes than the competition, including the ability to automatically generate reports, e-mails, send to a printer or even run an AppleScript. Page Sender has full AppleScript support throughout the software and sports some truly prodigious automation powers.
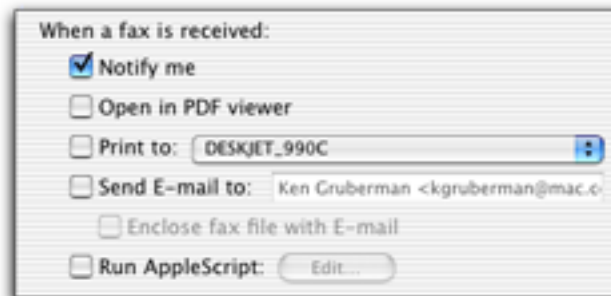
Here's a peek at some of the automation power
found inside Page Sender.

- Instead of FAXstf's confusing attachment option, you can attach additional PDF documents to an outgoing fax in Page Sender by simply clicking the Attachments icon in the print dialog and dragging the desired PDF to the list. What could be easier?

- Page Sender supports all OS X fonts, even Chinese, Japanese and Korean fonts. It also supports oversized faxes—both sending them and receiving them—from Omnifax and other larger-format fax machines.

- Finally, Page Sender supports all major electronic fax services such as eFax, jConnect, EasyLink, and MaxEmail. If your phone-line faxing days are over, this is the software for you!
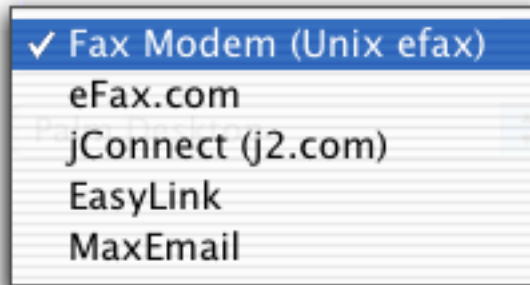
All major e-fax services are supported in Page
Sender, unlike its competition.

Heartfelt Admiration

As Mac users, we are used to being considered "underdogs" when it comes to the larger world of computers. Maybe that's why we gravitate toward small, innovative software companies that run circles around large, monolithic ones. Or maybe it's simply that we recognize quality software when we see it. In any case, Page Sender is a classic case of the little guy with the better idea winning out over the well-established leader. My heartfelt thanks goes out to Greg Scown and the good people at Smile Software for finally making quality fax software a reality on the Macintosh.

Review: HTML Character Converter 1.0

by Lee Bennett, lbennett@atpm.com

Developer: KavaSoft
Price: $4.99
Requirements: Mac OS X 10.1. Services work in Cocoa applications and some Carbon applications.
Trial: Fully-featured (25 uses)

Admit it. Everyone hates typing HTML entity codes. I mean, seriously, if you enjoyed typing something like é instead of é, you'd probably use a Windows machine instead of a Mac so that you could type that character by holding down the Alt key and typing 0233 on the numeric keypad. Admit it—you'd rather just type Option-E and then E.

HTML Character Converter restores the pleasure of not having to remember stupid codes for characters you want to display in HTML. It makes use of the Services menu to avail itself to supported applications.
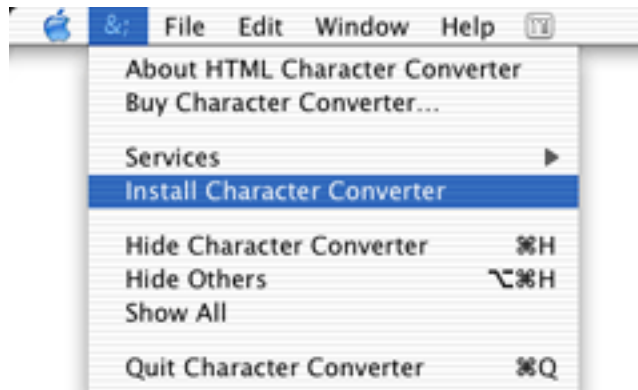
There's no need to teach yourself how to install things into the Services menu. HTML Character Converter does it for you.

Once HTML Character Converter is installed, it will automatically launch when it is needed. To use it, simply highlight a block of text that contains characters you wish to convert, and select "Encode into HTML" from the Services menu. Alternatively, you can simply press

Command-Shift-&. You do not have to isolate and select just the characters you wish to convert. HTML Character Converter ignores standard characters that do not need conversion, so feel free to just highlight an entire block of text that you know contains several characters that need conversion.
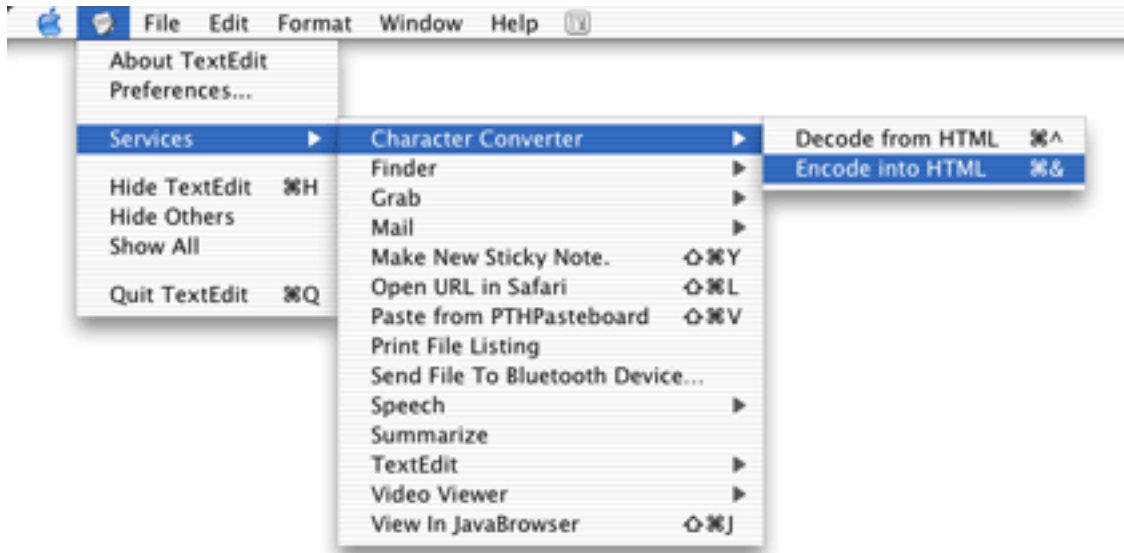
Almost as if it were an added bonus, this utility will also do a reverse conversion. If you end up with a string of text full of HTML entity codes, you can highlight the text and choose "Decode from HTML" or press Command-Shift-^.

A somewhat unimportant quirk is that the menu's representation for the keyboard shortcuts might be confusing. Technically, it is not wrong. It displays the standard icon for the Command key (the cloverleaf—a.k.a. splat) and then either the & or ^ character which, of course, must be typed with the Shift key. However, the hollow up-arrow icon for Shift is not there. The most accurate representation would be to show Command-Shift-6 and Command-Shift-7. But as I said, this isn't a major deal.

Close, But No Cigar

HTML Character Converter very nearly earned an Excellent rating. Two caveats held it back. The lesser reason was that, sometimes, you *must* perform your first conversion from the menu. The keyboard shortcuts will work normally after that. This is mentioned on the

Web site and I suspect just manually loading HTML Character Converter before doing any conversions will cause the shortcuts to work the first time. You get the idea. It's just strange that *sometimes* the shortcuts will work right off the bat.

The more important disappointment is that, apparently, HTML Character Converter does not work with my preferred HTML editor—Optima Systems' PageSpinner. Admittedly, it's not KavaSoft's fault that PageSpinner does not support services. Maybe this qualifies as an unwarranted gripe, but if I were developing a utility to aid coding HTML, I'd endeavor to make it work in as many of the popular editing packages as possible, even if a slightly less convenient action were required to invoke the conversion for some editors. Unless the usual software tracking sites are lying, PageSpinner *is* quite popular.

Perhaps for the same reason as PageSpinner, I must point out that HTML Character Converter did not work for me using BBEdit Lite 6.1, either, though KavaSoft says the utility works with "some Carbon applications like BBEdit." I suppose only users of the Pro version will benefit.

These things aside, HTML Character Converter is a pretty decent help—even for a version 1.0 release. The next version would do well to include preferences to not convert certain tags that are highlighted. For example, I would find it extremely useful to be able to highlight a range of text that had various extended characters in it (I write HTML pages with Spanish text fairly often) as well as some hyperlink tags, and have the < and > characters not get converted to `<` and `>` or the straight quotation marks in the tags change to `"`.

(And yes, I did use HTML Character Converter with TextEdit to convert to the codes you've seen above!)

Review: Legion 1.0

by Gregory Tetrault, gtetrault@atpm.com

Developer: Slitherine Software, Virtual Programming, Ltd., Freeverse Software
Price: $19.95 (from Freeverse Software); £19.95 including VAT (from Virtual Programming)
Requirements: G3 Macintosh with New World ROM, 64 MB RAM, 8 MB VRAM, 240 MB disk space, Mac OS X 9.2 or Mac OS X10.1.3.
Recommended: 800 MHz G3, 128 MB application RAM, 16 MB VRAM.
Trial: None

Overview

Legion is a turn-based strategy game similar to Civilization, Caesar, and Age of Empires. Its use of formations is reminiscent of the Mac Plus–era game The Ancient Art of War. Essentially, you manage city resources, raise and train armies, and attack or negotiate with neighboring city-states. You win if your power greatly exceeds that of your opponents.

Installation

Legion is installed by dragging the folder from the CD to your hard drive. The Legion CD must be mounted in order to launch the game; this is probably an anti-piracy measure, but Legion will work with a disk image of the CD in place of the physical CD.

Playing Legion

You begin by selecting New Game from the main menu screen. You then select a campaign and choose a nation to play. Legion has four campaigns plus a tutorial. Each campaign has a historical setting and a number of alternative settings. Once you've selected your campaign options, the game begins.

Campaign Selection

Each turn in Legion represents a season. During each turn you may begin the construction of new buildings or facilities (farms, mines, stables, shrines, barracks, etc.). However, regardless of when you begin construction, completion is always in the spring. During each turn you may reorganize and move your armies or begin an attack on a nearby enemy city or army. Finally, during each turn you may access the Diplomacy Screen and interact with any of your opponents. Options include declaring war, offering peace, forming or breaking alliances, paying tribute, and acquiring information.

The Empire Overview screen lists your cities and their populations, resources (food, ore, and wood), buildings under construction, and units being trained. Clicking the View button takes you to the highlighted city. You can also access a city by clicking on it in the Campaign Screen.

Empire Overview

City design and resource maintenance are important because they determine the kind of armies you can field and how large a population you can support. For example, you cannot field archers without building a fletcher, and the fletcher is worthless without a lumber mill. To field large armies you need a barracks (for training) and a quartermaster.

Unlike most other empire building games, Legion limits the size of your cities. You begin with a village and can eventually grow to a town and then a city. You do this by replacing the Village Hall with a Town Hall and the Town Hall with a City Hall. Of course, it takes time and proper planning to grow from a village to a city. You begin with a limited number

of persons (who will either work or be recruited into your army), resources, and money. With proper management, you can increase the resources, wealth, and population of your cities.

City Screen showing the small oval area available for buildings.

The main focus of Legion is on organizing, moving, and using your armies. This is done via the Campaign Screen, the Strategic Map, and the Deployment Screen. The choice of army units available depends on the nation you have selected. Legion mixes strategy (army

composition, size, and placement) with tactics (unit placement, formation, and movement). When your army comes into contact with an opponent, you use a Deployment Screen to implement your tactics.

Legion Deployment Screen

The Deployment screen represents the area of combat and has a crude representation of the terrain. Each unit of your army is represented by a rectangle. You drag the rectangles to desired starting positions. You choose the formation for each unit that will hopefully work best against your opponent. Finally, you issue movement orders to each unit. These

are relatively crude commands, such as "hold for a few seconds and then advance." When you have completed these tasks, clicking the OK button displays live-action fighting on the Battle Screen.

Battle screen showing live combat. Insert shows unit locations for the entire field of combat.

You have no control over the battle at this point. For example, if your units are being decimated you cannot order a retreat. Instead, your units respond to the situation depending on their characteristics (unit type, training, and experience) and on their morale (which will be low if the battle is going badly). Units may fight and win, fight and die, or fight and flee (and often die while running). The lack of control during battle supposedly mimics the reality of poor communications during ancient combat, but even in those ages leaders could communicate with units via signal flags or sound (horns or drums).

Diplomatic options seem to have only a minor role in Legion. In my brief exposure to the game, very few alliances were offered or accepted. Neighboring nations often declared war immediately, without giving you a chance to negotiate or pay tribute.

Documentation

Legion comes with a 36-page printed manual. The entire manual is difficult to read due to very small type and an underlying gray reproduction of a map in the background. The manual gives only bare-bones descriptions of game play. It also describes the many different types of military units. There is no information on strategy or tactics.

Technical Support

Paradox Entertainment maintains a Legion Forum Web site. Slitherine Software has a FAQ Web page. No true technical support is available for Legion, not even by e-mail or Web form.

Problems and Bugs

I had no problems installing or running Legion on our test machine. It seems remarkably stable.

Wish List

I'd like to have simple live battle commands such as hold, advance, charge, and retreat. Construction and training should take a fixed number of turns (instead of being completed only in the spring). The ability to build roads (we are talking about Romans, after all) should be included. A more complete manual and strategy guide would be helpful.

Other Reviews of Legion

- Games Domain
- Sword and Pistol
- Actiontrip
- Gamezone

Alternatives

Civilization II, Caesar III, and Ages of Empire (turn-based games) and the Warcraft series (real-time games) are older alternatives that I found more entertaining than Legion. Newer turn-based strategy games with good reviews include Master of Orion III, Civilization III, Age of Empires II, and Heroes of Might and Magic IV.

Summary

Legion performed as expected, had decent graphics, and was quite stable. However, I did not enjoy the game. City and resource management were too limited. Diplomacy seemed almost irrelevant to the historical campaigns. Tactical control of army units was too crude.

Review: Path Finder 2.1.1

by Sylvester Roque, sroque@atpm.com

Developer: Cocoatech
Price: $34
Requirements: Mac OS X 10.2
Trial: Fully-featured (21 days)

When the call went out for volunteers to review software this month I don't know why I volunteered to review Path Finder. I mean, I have tried a lot of software in the last few years but until now I have never tried one of the many Finder replacement programs available. I mean, the Finder works well; why mess with a good thing, right? Well, for once in my life, volunteering turned out to be a good thing.

Path Finder—formerly known as SNAX—is a comprehensive file management program that runs either in conjunction with the Finder or on its own. After a week of putting Path Finder through its paces, I can honestly say I am impressed.

Installation

Once you download the Path Finder program, installation could not be easier. The compressed file is less than three megabytes, and once downloaded you can use Disk Copy to decompress the file and mount it on the desktop. Open the mounted disk image and drag the Path Finder file, which looks like a signpost, to the Applications folder on your boot drive. Once the program launches, a screen appears which allows you to either enter a registration code or buy later if you want to try the program first.

First Impressions

Upon launching Path Finder and entering the temporary registration number, I was pleasantly surprised. First of all, Path Finder seems to have read my Finder settings for which types of items I want to appear on the desktop. A window appears opened to your Home directory with the contents arranged in Column view. For many users this is where they want to start. As for myself, most of my data is stored elsewhere so I prefer a different starting point. No problem, a quick trip to the Preferences menu and you can control what files the browser shows and where it starts from when opened.

Speaking of preferences, it's a good idea to have a look at them. There are a myriad of options that control how the Path Finder window presents files to you. There are also preference settings that control such things as the default text editor to use for basic text handling and how files will be previewed.

One of the first things I noticed about Path Finder is that in many respects it looks like the Finder that you know and love. You can be up and running comfortably immediately and take your time exploring all of the extra features. As you are learning the program, all of the Finder's keyboard commands are functional and behave in the ways that you expect. Let's take a look at some of my favorite features.
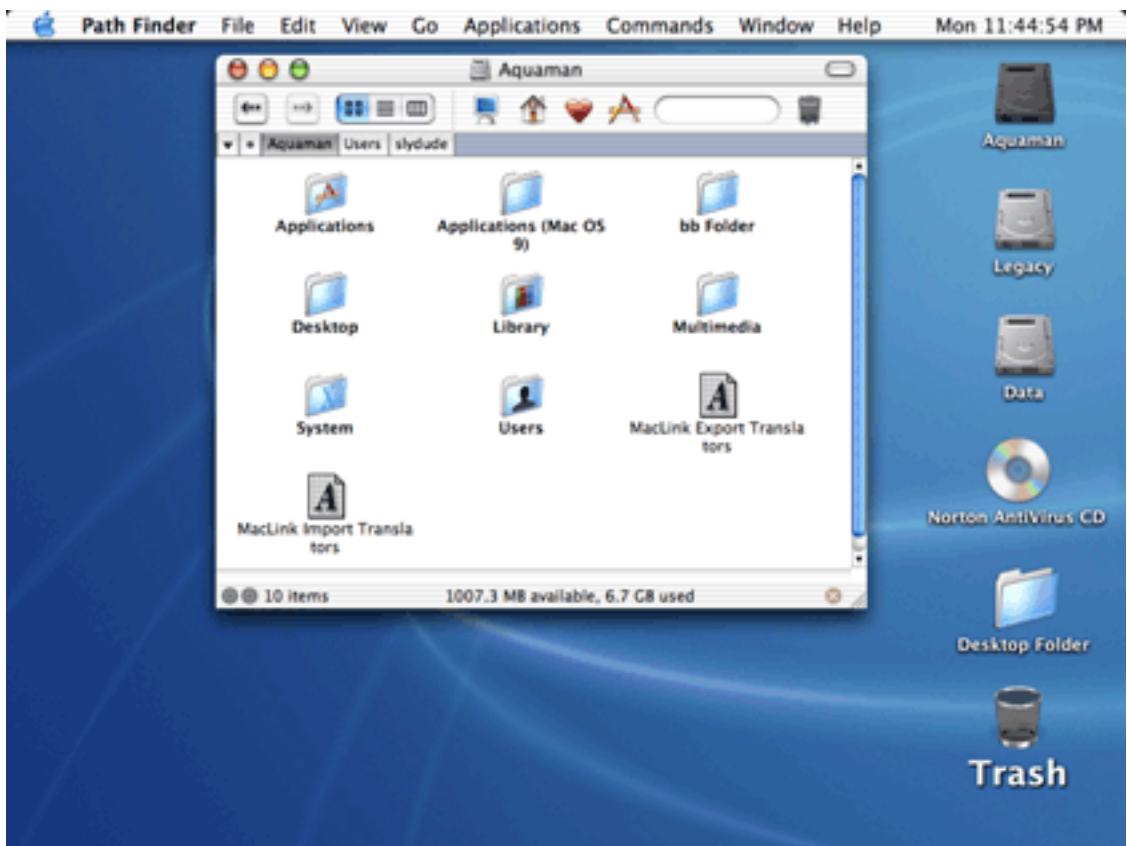
Basic Path Finder Window

Take a good look at this window. There's an interesting feature here that took me a couple of days to notice. Look at the screenshot just above the folder icons. The pathname leading to the folder you are working in appears on these tabs. Clicking on a tab allows you to back up to any point in the path with a single click of the mouse.

My Favorite Things

The Right Keys: At one point during the System 7 heyday I searched high and low for reliable utilities that allowed me to add keyboard commands for Finder operations that did not already have them. Thanks to the folks at Cocoatech, this ability is built into Path Finder. From the Path Finder menu, choose Set Menu Keys. A window will appear showing the name of each Path Finder menu. Clicking on the name of a menu causes the window to expand showing each keyboard command for that menu. Click on a command and press the keys you would like to use as a shortcut for that command.

Take Out The Trash

Path Finder does more things with the Trash than most people have ever thought about doing. In addition to a preference setting for whether the trash can appears on the desktop or in the Dock, Path Finder has other trash-related options in the Path Finder menu. You can view the trash for each connected volume or empty the trash for any of these volumes.

A Good Report

Here is a real time saver. Take a quick trip to the File menu and choose Reports. A submenu lets you decide whether to produce a directory listing, volume listing, font list, or system profile. Once the report is compiled a new document window is opened in the text editor and the window is brought to the front. The font report shows what each font looks like. The system profile report shows the same information contained in a text printout from Apple System Profiler, but you didn't have to open System Profiler or tell it to save the result to a text file.

The File menu also contains another nice touch. Labels are back; you can choose a file and apply a colored label as you could in previous versions of the OS. The only difference is that with Path Finder you cannot rename the labels as you could under previous operating systems.

Where Did I Put That File?

Choosing Find File (Command-F) from the Edit menu brings up the Find File dialog box with two options: Locate and Find. Locate is the most interesting option here. Once you have typed in something for Path Finder to locate, the pathnames are dumped to a text file that is opened in the default text editor. There is an important difference between the Find command in the Finder and the Find command in Path Finder. The Find command in the Finder is capable of executing multiple-criteria searches.

If, like most Mac users, you have a large number of files on your system, you will probably appreciate the options in the View menu. In addition to the same options available in the Finder, Path Finder's View menu can control the size of desktop icons and how they are arranged. You can arrange desktop icons top to bottom like the Finder does, but you can also arrange them horizontally left to right. Now if it only had an option to arrange icons top to bottom on the left side of the screen, I'd be happy. The View menu is also the place to go if you want to show or hide invisible files.

If you want a quick way to get to your applications, Path Finder has it. The Application menu has icons for every program in the Applications folder of your boot drive. There is also a submenu here with icons for all applications that are currently running. Choosing an already running application brings it to the front. If the chosen application is not running, Path Finder launches it.

Time to Take Command

Path Finder's Commands menu has several items that are either improvements on the same command in the Finder or commands that do not exist in the Finder. Here are three of my favorites:

Click once on a graphic and then choose Plugins from the Commands menu. One of the options is Convert Image. Although this won't replace your current graphics program, it does handle basic conversion.

If you have ever used the Finder's Duplicate command to make multiple copies of a file you may not have liked how it names files. Suppose the original file is named "Chester". The first copy, which is actually the second file, is named "Chester copy". If you make an additional copy that file is named "Chester copy 1". Once there are enough copies for the

Finder to start attaching numbers to the filename, the number is always one off from the actual number of copies that have been created. Path Finder's Duplicate command corrects this problem. Granted, it's a minor thing, but a nice touch anyway.

The last feature I'll look at is the Touch command. This is a neat idea. Suppose for some strange reason you need to change the modification date on a file. The Touch command makes that change without you having to open the file.

These were some of my favorite commands. Those of you who like working with files in the Terminal will appreciate the Open in Terminal command.

Final Thoughts

I ran Path Finder on two different Macs for a week and the program has not crashed once. One of the Macs was a highly modified Blue and White G3 with a processor upgrade and graphics card upgrade. The other was an iBook SE. Both machines were running Mac OS X 10.2.5. This program has a wealth of features as well as the fit and finish one expects from a mature application. This is no surprise since the program has been around for some time under the name SNAX.

In the week that I ran Path Finder most tasks felt as fast in Path Finder as they did in the Finder. There were some tasks that Path Finder performed faster than the Finder did on the same machine. For example, I used both programs to copy six audio files that totaled two gigabytes to the same external FireWire drive. Path Finder copied these files seven seconds faster than the Finder did.

The only problem I encountered was that even with the preference set to warn me when emptying the Trash, I did not always get the warning. There could also be a bit more in the way of documentation. The program is pretty self-explanatory and has a brief help file, but I was unable to find anywhere an exact description of the system requirements.

This is an excellent program. It functions as advertised. Path Finder does a variety of tasks well. If you need the ability to burn CDs from the desktop, an Undo command, multiple-criteria finds, or the ability to record AppleScripts you will have to return to the Finder. For most other tasks Path Finder is more than equal to the task.

Review: Unix CD Bookshelf 3.0 (CD-ROM)

by Kirk McElhearn, kmcelhearn@atpm.com

Author: Various authors, published by O'Reilly
Price: $129.95
Trial: None

In a recent issue of ATPM I reviewed O'Reilly's excellent book *Unix Power Tools*, by Powers, Peak, O'Reilly, Loukides, and others. I said the following about this heavy tome:

> It is more like a Unix encyclopedia; the ultimate bathroom book about Unix. With its many hundreds of tips, this is the book to get once you are comfortable with the basics. You'll learn about shell shortcuts, using grep and find, editing files, working with processes, shell scripting and managing your system. While not everything is applicable to Mac OS X, the vast majority of what this book contains applies to it.

That fine book is indeed heavy, and if you need to move around with your PowerBook or iBook, and want a Unix reference to take with you, it will certainly increase your load: it's as heavy as my 14" iBook.

But O'Reilly has solved that problem by releasing the third version of its Unix CD Bookshelf. Not only does this CD include *Unix Power Tools*, but it comes with six other excellent books:

- *Unix in a Nutshell* (3rd ed.),
- *Mac OS X for Unix Geeks*,
- *Learning the Korn Shell* (2nd ed.),
- *sed & awk* (2nd ed.),
- *Learning the vi Editor* (6th ed.),
- *Learning the Unix operating System* (5th ed.).

It also contains a paper copy of *Unix in a Nutshell*; while this is not necessary, it is probably done so the purchaser has the feeling they are getting something consistent for their money. With almost 3,300 pages of text, and a retail price (for the paper editions) of some $330, this CD offers a lot of value.

Naturally, these books are most useful for full-time Unix users, but the wealth and breadth of information they contain is more than enough for any Mac user who frequently resorts to the command line. Sure, you might not use the Korn shell (it's a shame that O'Reilly didn't bow to Mac users a bit more and include *Using csh & tcsh*, since the tcsh shell is the default shell under Mac OS X), you might not need sed and awk yet, and you may use Mac text editors instead of vi, but even if all these are true, the remaining books are more than worth the cost of this CD.

You can "read" any of these books on-screen by selecting a chapter or section from their tables of contents, or by choosing a section from the master index, which is a huge index of all the books combined. You can also print out any of the sections. The HTML implementation of these texts is well done, though at times I would like the sections to be longer so I don't have to click the "next" button so often. The breakdown for *Unix Power Tools* is probably the best, since the book itself is made up of short sections, and one of these per page fits perfectly.

The value of the books included on this CD is enhanced by the search capabilities available. A Java search engine lets you search in any or all of the books, though it is limited to searching in the body of the books; it would be very useful to be able to search only in chapter or section titles, because sometimes the number of results is overwhelming. Unfortunately, this search capability does not work with all browsers. My browser of choice is Camino, and the search function does not work at all. It works only partially, however, with Safari beta 2, and this means that I am stuck using Internet Explorer to view the contents of the CD. (I did not test it with OmniWeb, Netscape, or Opera.)

Using this CD on the Mac is very simple. You start by double-clicking the index.htm file at the root level of the CD-ROM, and the main page opens in your default browser. You can access each book from that page, clicking on a title, then clicking on chapters or sections in a table of contents. You can also access the search engine from a link on the CD's home page.

If you plan to use it often, there's a better way to work with the CD: after inserting the disk in your Mac, you can either just copy it to your hard disk, or open Disk Copy and create a disk image of it. (The disk image is about 62 MB; a compressed disk image is about 29 MB.) Then you can consult its contents without needing the CD in your drive, freeing it up for other CDs, and also using less battery power on portables.

This CD would be even more useful if there were a possibility of expanding its contents. O'Reilly already offers on-line access to many of its books through its Safari service. If users could purchase the entire texts of other books, and "install" them as modules with the CD, this would allow them to have an entire O'Reilly bookshelf on their computers. Naturally, this opens many doors to content pilfering, and O'Reilly should already be congratulated for making available the texts on this CD. But it does give a glimpse of how some types of texts may be distributed in the not-so-distant future.

This CD is naturally not for all Mac users; it will only interest those of us who use the command line regularly. But for power users this tool is invaluable, offering a wealth of information that you can take with you wherever you go.

Review: Wipeout 2097 1.2.1

by Eric Blair, eblair@atpm.com

Developer: Virtual Programming, Freeverse Software
Price: $30
Requirements: 333 MHz G3 processor, Mac OS 9.1.
Trial: None

Overview

Wipeout 2097 is a futuristic racing game where players pilot zero-gravity craft around a handful of tracks. Personally, I'm a huge fan of this genre of gaming, going back to the early 90s when I wasted many hours at my friends' houses playing F-Zero on their Super Nintendos. F-Zero was one of my favorite games, so the quality bar was set fairly high when I started playing Wipeout 2097.

Installation

You install Wipeout 2097 by simply dragging a folder to your hard drive. However, there have been several major upgrades to the game since it was released, so you should make sure you're using the latest version. The original version of Wipeout 2097 wasn't Carbonized, so it would only run on OS X under the Classic environment. The copy I received from Freeverse was version 1.1. It was Carbonized, but it didn't support network play and the mouse cursor remained on the screen at all times. Version 1.2.1, which is available from the Freeverse Web site, addresses both of those issues and appears generally solid.

Additionally, the Wipeout 2097 CD includes nine tracks from Cold Storage, the techno group that provides the soundtrack for the game. However, if you have iTunes set to automatically import any audio CD you insert, it will slow down game play (as I learned when I started reviewing the game).

Game Play

Wipeout 2097 offers most of the standard racing game options: a selection of tracks, a selection of vehicles, and a choice between time trial and arcade racing modes. Additionally, the crafts in Wipeout 2097 have shields, weapons, and power-ups. These items aren't common to all racing games, but they do show up from time to time, depending on the type of game.

Shields are analogous to the amount of damage your craft has taken over the course of a race. Once your shields are depleted, the game is over. Your shields get depleted through bumping into walls or other drivers and getting hit by weaponry from other players.

There are a variety of weapons in the game. Most fall into the categories of missiles or electrical bolts—items you shoot from your ship with the goal of hitting an opponent. Other weapons include mines; the Thunder Bomb, which affects all visible opponents; and the Quake Disruptor, which sends a shockwave through the track in front of you.

The power-ups are fairly standard fare: shields, auto-pilot, and turbo boost.

As you would expect from the name, Time Trial mode is where you race against the clock to get your best time on the available tracks. This mode lets you practice on the different tracks without worrying about other racers trying to bump you out of the way.

Arcade mode is what will interest most people: you compete against other racers to win gold. Wipeout 2097 features six tracks split into three different difficulty levels. If you manage to finish first on all six tracks, you unlock the Arcade Challenge, which brings a new set of more difficult maps. Finish lower than third more than three times, and you lose.

Control

You can control your craft in Wipeout 2097 via the keyboard, the mouse, or a gamepad. When I first launched the game, I tried using the keyboard. To anybody who's thinking about doing this, don't bother. It's nearly impossible to handle the sharp turns using the arrow keys. I dug out my old Gravis GamePad and installed USB Overdrive. Since Wipeout 2097 has very few keyboard controls, I was able to not only program ship control onto the gamepad but also the key command for toggling your view from inside to outside the craft.

This improved the control a great deal. Instead of having my ship die from failed shields, I was able to complete and win several races. The controls were still a bit rough, though. I hope they would be better if I'd been using a modern gamepad with OS X drivers and analog control.

Shortcomings

Although Wipeout 2097 is an enjoyable game, it's not without its shortcomings. Some of these are due to the game's age (it was originally released for Windows in 1997) and others have to do with the game's design.

The first thing I noticed when I launched Wipeout is that there is no mouse control with the menus. You can only navigate with the arrow keys and the Return and Escape keys. This was even more annoying before I updated to version 1.2.1, since the mouse cursor was on the screen all the time.

In the name of full disclosure, I wasn't able to win on all the tracks in Arcade mode, so I wasn't able to try the Arcade Challenge. From what I've read, it sounds like this is an elimination situation where you advance from race to race with each victory. This means that Wipeout 2097 is lacking any sort of championship, or circuit mode. I'm referring to a set of six or so races where the same drivers compete in every race to try to have the best "season."

Another disappointment is the limited selection of crafts. At the start of the game, there are three available. The manual hints that a fourth car is made available at some point in the Arcade Challenge. Compared to other games, this is a fairly small number.

Finally, when you launch the game, you are greeted with a configuration screen that lets you set the resolution, the frame rate, the sound type, and whether you want to play a single-player game or a multi-player game. These settings belong in the game, not in a dialog you have to dismiss every time you launch the game.

Ideally, the resolution and audio type should be set in the preferences, the frame rate should be the maximum your computer can support, and the game type should be set at the main screen—there's no reason you should have to quit the game if you decide you want to play against friends. At the very least, you should have an option of not displaying this box at startup, since three of the four settings will almost never change. If I remember correctly, Warcraft had a dialog like this that contained a checkbox that read "Always show at startup." If you chose not to automatically see the dialog, you could display it by holding down the Command key at launch.

Conclusion

Although there are certainly things I think could have been done differently, Wipeout 2097 is a very enjoyable game. Once I plugged in my gamepad, the game became extremely enjoyable and I had a hard time pulling myself away to write this review. It doesn't seem as fun as I remember F-Zero being—and you can't just pick it up off the shelf to play without having a gamepad—but if you like fantasy-style racing games, you'll likely enjoy Wipeout 2097.

FAQ: Frequently Asked Questions

What Is ATPM?

About This Particular Macintosh (ATPM) is, among other things, a monthly Internet magazine or "e-zine." ATPM was created to celebrate the personal computing experience. For us this means the most personal of all personal computers—the Apple Macintosh. About This Particular Macintosh is intended to be about your Macintosh, our Macintoshes, and the creative, personal ideas and experiences of everyone who uses a Mac. We hope that we will continue to be faithful to our mission.

Are You Looking for New Staff Members?

We currently need several **Contributing Editors**. Please contact us if you're interested.

How Can I Subscribe to ATPM?

Visit the subscriptions page.

Which Format Is Best for Me?

The **Online Webzine** edition is for people who want to view ATPM in their Web browser, while connected to the Internet. It provides sharp text, lots of navigation options, and live links to ATPM back issues and other Web pages. You can use Sherlock to search all of the online issues at once.

The **Offline Webzine** is a HTML version of ATPM that is formatted for viewing offline and made available in a StuffIt archive to reduce file size. The graphics, content, and navigation elements are the same as with the Online Webzine, but you can view it without being connected to the Internet. It requires a Web browser.

The **Print PDF** edition is saved in Adobe Acrobat format. It has a two-column layout with smaller text and higher-resolution graphics that are optimized for printing. It may be viewed online in a browser, or downloaded and viewed in Adobe's free Acrobat Reader on Macintosh or Windows. PDFs may be magnified to any size and searched with ease.

The **Screen PDF** edition is also saved in Adobe Acrobat format. It's a one-column layout with larger text that's optimized for reading on-screen. It may be viewed online in a browser, or downloaded and viewed in Adobe's free Acrobat Reader on Macintosh or Windows. PDFs may be magnified to any size and searched with ease.

What Are Some Tips for Viewing PDFs?

- You can download Adobe Acrobat Reader for free. If you have a Power Macintosh, Acrobat Reader 5 has better quality and performance. ATPM is also compatible with Acrobat Reader 3, for those with 680x0 Macs.
- You can zoom the PDF to full window width and scroll through articles simply by single-clicking anywhere in the article text (except underlined links).
- You can quickly navigate between articles using the bookmarks pane at the left of the main viewing window.
- For best results on small screens, be sure to hide the bookmarks pane; that way you'll be able to see the entire page width at 100%.
- Try turning Font Smoothing on and off in Acrobat Reader's preferences to see which setting you prefer.
- All blue-underlined links are clickable.
- You can hold down option while hovering over a link to see where it will lead.
- For best results, turn off Acrobat's "Fit to Page" option before printing.

Why Are Some Links Double-Underlined?

In the PDF editions of ATPM, links that are double-underlined lead to other pages in the same PDF. Links that are single-underlined will open in your Web browser.

What If I Get Errors Decoding ATPM?

ATPM and MacFixIt readers have reported problems decoding MacBinary files using early versions of StuffIt Expander 5.x. If you encounter problems decoding ATPM, we recommend upgrading to StuffIt Expander 5.1.4 or later.

How Can I Submit Cover Art?

We enjoy the opportunity to display new, original cover art every month. We're also very proud of the people who have come forward to offer us cover art for each issue. If you're a Macintosh artist and interested in preparing a cover for ATPM, please e-mail us. The way

the process works is pretty simple. As soon as we have a topic or theme for the upcoming issue we let you know about it. Then, it's up to you. We do not pay for cover art but we are an international publication with a broad readership and we give appropriate credit alongside your work. There's space for an e-mail address and a Web page URL, too. Write to editor@atpm.com for more information.

How Can I Send a Letter to the Editor?

Got a comment about an article that you read in ATPM? Is there something you'd like us to write about in a future issue? We'd love to hear from you. Send your e-mail to editor@atpm.com. We often publish the e-mail that comes our way.

Do You Answer Technical Support Questions?

Of course. E-mail our Help Department at help@atpm.com.

How Can I Contribute to ATPM?

There are several sections of ATPM to which readers frequently contribute:

Segments: Slices from the Macintosh Life

This is one of our most successful spaces and one of our favorite places. We think of it as kind of the ATPM "guest room." This is where we will publish that sentimental Macintosh story that you promised yourself you would one day write. It's that special place in ATPM that's specifically designated for your stories. We'd really like to hear from you. Several Segments contributors have gone on to become ATPM columnists. Send your stuff to editor@atpm.com.

Hardware and Software Reviews

ATPM publishes hardware and software reviews. However, we do things in a rather unique way. Techno-jargon can be useful to engineers but is not always a help to most Mac users. We like reviews that inform our readers about how a particular piece of hardware or software will help their Macintosh lives. We want them to know what works, how it may help them in their work, and how enthusiastic they are about recommending it to others. If you have a new piece of hardware or software that you'd like to review, contact our reviews editor at reviews@atpm.com for more information.

Shareware Reviews

Most of us have been there; we find that special piece of shareware that significantly improves the quality our Macintosh life and we wonder why the entire world hasn't heard about it. Now here's the chance to tell them! Simply let us know by writing up a short review for our shareware section. Send your reviews to reviews@atpm.com.

Which Products Have You Reviewed?

Check our reviews index for the complete list.

What is Your Rating Scale?

ATPM uses the following ratings (in order from best to worst): Excellent, Very Nice, Good, Okay, Rotten.

Will You Review My Product?

If you or your company has a product that you'd like to see reviewed, send a copy our way. We're always looking for interesting pieces of software to try out. Contact reviews@atpm.com for shipping information. You can send press releases to news@atpm.com.

Can I Sponsor ATPM?

About This Particular Macintosh is free, and we intend to keep it this way. Our editors and staff are volunteers with "real" jobs who believe in the Macintosh way of computing. We don't make a profit, nor do we plan to. As such, we rely on advertisers to help us pay for our Web site and other expenses. Please consider supporting ATPM by advertising in our issues and on our web site. Contact advertise@atpm.com for more information.

Where Can I Find Back Issues of ATPM?

Back issues of ATPM, dating since April 1995, are available in DOCMaker stand-alone format. In addition, all issues since ATPM 2.05 (May 1996) are available in HTML format. You can search all of our back issues.

What If My Question Isn't Answered Above?

We hope by now that you've found what you're looking for (We can't imagine there's something else about ATPM that you'd like to know.). But just in case you've read this far (We appreciate your tenacity.) and still haven't found that little piece of information about ATPM that you came here to find, please feel free to e-mail us at (You guessed it.) editor@atpm.com.