ATPM

12.03 / March 2006   Volume 12, Number 3

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

Cover Art

Copyright © 2006 [Simon Griffee][1]. We need new cover art each month. [Write][2] to us!

The ATPM Staff

Publisher/Editor-in-Chief	[Michael Tsai][3]
Managing Editor	[Christopher Turner][4]
Associate Editor/Reviews	[Paul Fatula][5]
Copy Editors	[Johann Campbell][6]
	[Chris Lawson][7]
	[Ellyn Ritterskamp][8]
	[Brooke Smith][9]
	Vacant
Web Editor	[Lee Bennett][10]
Webmaster	[Michael Tsai][11]
Beta Testers	[The Staff][12]
Contributing Editors	[Eric Blair][13]
	[David Blumenstein][14]
	[Tom Bridge][15]
	[Matthew Glidden][16]
	[Ted Goranson][17]
	[Andrew Kator][18]
	[Robert Paul Leitao][19]
	[Wes Meltzer][20]
	[David Ozab][21]
	[Sylvester Roque][22]
	[Charles Ross][23]
	[Evan Trent][24]

---

[1] http://www.hypertexthero.com
[2] mailto:cover-art@atpm.com
[3] mailto:mtsai@atpm.com
[4] mailto:cturner@atpm.com
[5] mailto:pfatula@atpm.com
[6] mailto:jcampbell@atpm.com
[7] mailto:clawson@atpm.com
[8] mailto:eritterskamp@atpm.com
[9] mailto:bsmith@atpm.com
[10] mailto:lbennett@atpm.com
[11] mailto:mtsai@atpm.com
[12] mailto:editor@atpm.com
[13] mailto:eblair@atpm.com
[14] mailto:dblumenstein@atpm.com
[15] mailto:tbridge@atpm.com
[16] mailto:mglidden@atpm.com
[17] mailto:tgoranson@atpm.com
[18] mailto:akator@atpm.com
[19] mailto:rleitao@atpm.com
[20] mailto:wmeltzer@atpm.com
[21] mailto:dozab@atpm.com
[22] mailto:sroque@atpm.com
[23] mailto:cross@atpm.com
[24] mailto:etrent@atpm.com

How To	*Vacant*
Interviews	*Vacant*
Opinion	*Vacant*
Reviews	*Vacant*

Artwork & Design

Graphics Director	*Vacant*
Layout and Design	Michael Tsai[25]
Cartoonist	Matt Johnson[26]
Blue Apple Icon Designs	Mark Robinson
Other Art	RD Novo

Emeritus
RD Novo, Robert Madill, Belinda Wagner, Jamal Ghandour, Edward Goss, Tom Iovino, Daniel Chvatik, Grant Osborne, Gregory Tetrault, Raena Armitage.

Contributors
Eric Blair, Paul Fatula, Ted Goranson, Matthew Glidden, Matt Johnson, Miraz Jordan, Chris Lawson, Robert Paul Leitao, Wes Meltzer, Ellyn Ritterskamp, Sylvester Roque, Mark Tennent, Angus Wong, *Macintosh users like you.*

Subscriptions
Sign up for **free** subscriptions using the Web form[27].

Where to Find ATPM
Online and downloadable issues are available at the ATPM Web Site[28]. ATPM is a product of ATPM, Inc. © 1995-2006. All Rights Reserved. ISSN: 1093-2909.

Production Tools
Apache, AppleScript, BBEdit, Cocoa, Docutils, DropDMG, FileMaker Pro, GraphicConverter, LATEX, Mesh, make, Mailman, Mojo Mail, MySQL, Perl, Photoshop Elements, PyObjC, Python, rsync, Snapz Pro X, ssh, Subversion, Super Get Info.

Reprints
Articles, original art, and desktop pictures may not be reproduced without the express permission of the

Legal Stuff

• • •

Thanks for reading ATPM.

---

[25] mailto:mtsai@atpm.com
[26] http://www.cornstalker.com
[27] http://www.atpm.com/subscribe/
[28] http://www.atpm.com

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.

• • •

You can help support ATPM by buying from online retailers using [our links](1). If you're going to buy from them anyway, why not help us at the same time?

We are also 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.

---

[1] http://www.atpm.com/about/support.shtml

Welcome

by Robert Paul Leitao, rleitao@atpm.com

Welcome to the March issue of *About This Particular Macintosh!* It's often said "March comes in like a lion and goes out like a lamb." But it was indeed the last day of February that made a great deal of noise with the announcement of new Apple products. Our coverage begins with the February 28th product announcements.

The New Mac mini

On February 28th Apple announced the immediate availability of new Mac minis with Intel Core Solo and Core Duo processors. Complete with iLife '06 and Front Row, the latest Macintosh to make the Intel transition starts at $599 for the Core Solo model.

The iPod Hi-Fi

While announcing the new Mac minis, Apple also announced the latest complement to its iPod line of products. Called the iPod Hi-Fi, it's a high-fidelity speaker system for the popular iPod digital music player. With a retail price of $349, the iPod Hi-Fi is designed to provide iPod owners with a convenient and attractively priced means to use their iPods to provide room-filling sound. The big question to be answered is whether or not the new iPod Hi-Fi will be greeted with high fives from consumers.

One Billion Songs Served

When the first-generation iPod was announced back in 2001, it's doubtful whether anyone in the Macintosh world would have imagined the size and scope of today's iPod Nation. First released as a Mac-only peripheral, in its less than five years of history the ubiquitous digital music player has transformed not only the company that makes the device, but also the manner in which people purchase and enjoy music.

On February 22, 2006 the iTunes music store sold its one-billionth song. This milestone followed a quarter in which revenue from iPod sales was greater than Apple's revenue from the sale of Macintosh computers. The Macintosh-iPod-iTunes combination illustrates the power of creative minds to create new industries and materially enhance the digital life of computer users everywhere.

Sometimes lost in all of the talk about the iPod's success is appreciation for the seamless integration of iTunes and the "iApps" or iLife suite of Macintosh software products. One reason this is overlooked is that the vast majority of iPod owners and iTunes music store customers are not Mac owners. Those of us who own a Mac might take this kind of integration for granted. iPod owners are now moving to the Mac in droves. The Intel-based iMacs may accelerate this important trend. Dual citizenship in the iPod Nation and the Macintosh world may be the consumer electronics trend of the year.

The Intel Core Duo iMac

In last month's issue of ATPM we discussed the new iMac with Intel Core Duo chips. In the first few weeks following release, Apple struggled to meet consumer demand for the latest generation of the company's most popular computer. The new iMac appears to be drawing attention from potential new Mac users as well as platform veterans. At least two members of the ATPM staff are proud owners of the new Mac Core Duo, and anecdotal evidence indicates sales at Apple's online store have been brisk.

The new video card options and other enhancing features, in addition to the change in chip architecture, set the new iMac apart from its predecessor although the enclosure has remained the same. Sales of the new iMac along with the continuing rise in the popularity of the iPod will provide the company with much-needed time and revenue until the full product line transition to Intel chips is complete.

Disney Buys Pixar

The Magic Kingdom has a new creative prince. Apple CEO Steve Jobs is now the largest shareholder of the Walt Disney Co. following Disney's purchase of Pixar. Will Disney undergo Apple-style changes with Steve Jobs on board? Can the team from Pixar bring about a renaissance in creativity at Hollywood's most storied animation firm? Watch for major changes and a few surprise announcements at Mickey's house as Disney executives move quickly to regain the favor of movie fans, excite theme park visitors, and restore the confidence of investors.

Our March Issue

We enter the month of March with more than half of the Macintosh product line now available with the new Intel processors and even more new Macintosh products in the pipeline. ATPM enters the month of March with an impressive pipeline of the latest news, views, and reviews written with the discerning Mac user in mind. Please join us this month and every month as our team of writers and editors works around the clock, around the world, and throughout the year to bring you our special content in a unique and easy to read monthly format.

Our March issue includes:

The Candy Apple: Just Because We *Can* Do a Thing, Does Not Mean We *Should* Do a Thing

Computing in the Stone Age is still just fine, thanks.

Bloggable: I Dream of iPod

Wes Meltzer has the iPod on the brain in this month's column.

About This Particular Outliner: Dossier and Outliner Web Interaction

Ted Goranson looks at the new outliner Dossier 2 and ruminates on Web-outliner interaction.

Segments: Post-Microsoft Entropy

Mark Tennent notes Microsoft's struggles in the European Union, and the potential effect on Mac users.

How To: Performing a Video Extraction

Extracing DVD video to a format you can bring into iMovie isn't as hard as you may think. It just takes the right tools.

How To: Installing a SuperDrive Into a Macintosh Cube

Squeezing extra life from a five-year-old Macintosh Cube, this article helps you install a laptop-style SuperDrive into Apple's original space-saving Mac. It requires a few extra pieces, but adds DVD burning and fast CD reads to a system that normally relied on external FireWire drives.

Desktop Pictures: Quartz Composer

This month's desktop pictures were created from Quartz Composer models developed by Futurismo Zugakousaku. Apple's Quartz Composer is a "groundbreaking graphics development environment that allows you to explore the incredible power of the graphics stack of Mac OS X Tiger."

Cortland

Things get pretty crazy at Weiser Graphics after a round of fax spamming tactics. Meanwhile, Chad has vague recollections of a shadowy concept known as a life outside the company.

Review: Chessmaster 9000

Practically overflowing with tutorials and exercises, Chessmaster 9000 is a worthy instructor and opponent for all skill levels. This review explores its metaphorical rooms of chess, including the young player area and a vast database of several centuries' worth of games and events.

Review: Clean and Polish Kit

If you are anal about keeping your iPod in pristine condition, this kit may be a good tool for your arsenal. However, if you're hoping to bring some semblance of renewal to a neglected iPod surface, move along, there's nothing to see here.

Review: Data Rescue II

"This is the kind of program you don't care about until you're desperate. But if you do have a hard drive failure and haven't got a recent backup, download Data Rescue II."

Review: Path Finder 4.0.2

Miraz Jordan provides just a few examples of how this Finder replacement can make your Mac work harder for you.

Review: X-Slim EL

A nice idea sorely lacking in polish and details.

E-Mail

REALbasic 2005 Review[1]

Thanks for your reviews and comments of REALbasic. My six-month license period just expired two days ago! I was quite pleased that RB2006.1 was released just a few days before that. I started with 2005.1; RB has put out an impressive five releases in this period, and each seems to address some of the (many) annoying issues. I have the single-platform product.

I am surprised that neither Messrs. Ross nor Kubie mentioned (or noticed?) another target audience that RB seems to court somewhat aggressively, that is, former (and perhaps, disenfranchised?) Visual Basic developers. I am not from those ranks; my background is 20-odd years software development primarily on VAX/VMS platforms, with wide exposure but focused on VAX-BASIC and what was formerly Digital's RDMS database product.

Since retiring from that, I have been dabbling—rather extensively—with AppleScript and Visual Basic, and now REALbasic. AppleScript is, for me, quite disappointing; I echo and amplify Mr. Kubie's complaint that it is very picky about syntax, as well as frustratingly unhelpful (I admit I'm spoiled by the VMS online help and documentation, hands-down superior to everything else I've seen). I echo Mr. Ross' observation that AppleScript is somewhat at the mercy of uneven implementation among the many applications that support it; of course, that broad reach is also its major advantage. Too bad it is so *dog slow*. VB runs slow circles around it.

Despite VB's critical shortcomings, it has some very nifty, unique features, for example the immediate mode interactive programming (I'd love to see this from REALbasic). However, I would sentence to a painful drawn-out torture anyone remotely responsible for the dire, dismal, dreadful documentation—no, it cannot rightfully be called that; VB doesn't have documentation. So woeful, so erroneous, so egregious; it bespeaks unbelievably callous disregard for the customer, and for a product costing hundreds of dollars, and years—decades—on the market. Completely unacceptable.

REALbasic would be hard-pressed to begin to reach that level of incompetence and thoughtlessness—unfortunately, they do seem to try. It's by far the weakest component of their ambitious, object-oriented, multi-platform undertaking. Just hiring high-school seniors to proofread it would improve.

I haven't had much luck with the "community links" they provide for alternative support (more like, commiseration?), but on Mr. Ross' advice I am joining the mailing list with renewed hope.

I'll end this awful rant with this simple reminder: with good documentation, a very bad programmer can produce surprisingly good results; without it, the most skilled programmer is severely undermined.

—Ganymede

Thanks For *ATPM*

I thank you for sending this to me *free*, and my Pensioned Pocketbook thanks you too. My son, a Switcher, has just bought the new 20″ iMac yin/yang, and I am sending him this URL/issue for his enlightenment. I'm "suffering" with my 17″ PowerBook G4. . .but someday.

In any event, you have provided me with good useful information gleaned from your hard work, and I just wanted to let you know of my appreciation from the Mediterranean shores of Bella Napoli.

—John McMahon, Apples Forever-'83, and a Mac Evangelist-'86

Google Tells Big Brother to Take a Hike[2]

The explanation of how Google does what it does is here[3]; another concern that I have developed recently is that the sampling technique proposed by the government's expert might very well indicate a much higher proportion of pornographic searches than are performed by actual humans—the pornography industry, in order to gain data to manipulate search results, makes many automated queries to the Google servers in violation of the terms of service of Google. Where in the filtering process used to try and prevent such automated queries (assuming that there is one) does the government expert begin his sampling?

Does Google risk either (1) misleading the government, which could potentially be a felony (a felony of the sort that destroyed Arthur Anderson), or (2) admitting openly that they don't have a foolproof (or even very effective) way of recognizing the automated

---

[1] http://www.atpm.com/12.01/realbasic.shtml

[2] http://www.atpm.com/12.02/candy.shtml

[3] http://www-db.stanford.edu/~backrub/google.html

queries, which would encourage more mischief. Even if the actual content of the queries is protected by court order, and not made part of the public record, it is hard to see how issues related to the second risk won't become public by way of inference from the Google data.

What Google does for us is something that most of us (outside of the rarified Artificial Intelligence community) have never had a machine do for us before a few years ago: arrive at strategies to find the right data.

Can strategies exist in the absence of privacy? At the same time our government is attacking Google, they are reserving for themselves a right of privacy for their own information gathering apparatus, which they maintain can't work appropriately without that privacy. In a democracy, can the government really have such an asymmetry in informational power compared to the people? In verifying that a particular system is secure and capable of preserving the privacy of its users, the consensus seems to be that open source software is superior[4] to a closed source solution—but for search engines, the opposite might well be the case.

Thanks to Ellyn for bringing this controversy a little more down to Earth.

—*Drew Arrowood*

• • •

Google is applauded for saying no to the U.S. government in cooperating with an ongoing investigation into child pornography, and is applauded for its efforts in cooperating with Chinese censors. This seems to me to be both inconsistent and obviously hypocritical.

—*Ken*

> I don't believe I said anything about China in the column, but I will suggest a way to think about it so that it is not inconsistent. You can play along or not, of course, as you like.
>
> The issue in the United States is not one of censorship. The Justice Department wants to prosecute people who violate a pornography law. Google is not censoring anything, and neither is the government. Google has been asked to help with detective work, and refused. They are not cooperating with the government because it is not in their interest to do so (they want to protect users' privacy) long-term.

> In China, the question is of whether it is appropriate for a search engine to screen out results because the government says so. I see this as censorship, but since users will get a notice on the Web page saying the results have been pruned, it does not seem so bad to me. Someday it will change. Google is cooperating with the government in this matter because it is in their interest to do so (long-term, they will have established themselves as a useful tool).
>
> —*Ellyn Ritterskamp*

iSongBook Review[5]

I love Tivoli Audio, too! If you want something more reasonably priced, I highly recommend the Tivoli Pal (they also make an iPal in the iPod white color). It's a little radio with a long-lasting battery in it. It has one auxiliary input, so I plug my iPod into it. It only has one speaker, but the sound is great for a speaker of that size. I use it for by my computer for near-field listening. Then I have a nice sound system for better listening. But I highly recommend it. And the battery makes it very portable.

—*Daniel Edwins*

EarThumps Review[6]

Well, now is your chance to try them. They're on sale[7] for $12.34.

I've got a pair of the Sony Fontopia's and I love them. I wanted to get a pair for my wife, but was waiting for them to go back on sale. I'm gonna try these and see how they compare. Oh, and for the record, I've had the Fontopia's for about a year and the cord hasn't disintegrated at all. I use them for daily commuting on my bike, as well as weekend mountain bike rides, so they definitely get a lot of abuse. I don't know why other's have had bad experiences with them.

—*Aaron Marks*

Networking Question

I just read Matthew Glidden's article on LocalTalk-Ethernet bridges[8] which was very informative. However it didn't quite address a problem I'm trying to solve.

I have a LaserWriter II NTX, which uses LocalTalk. I want to hook it up to a Ethernet network

---

[4]http://www.gnupg.org

[5]http://www.atpm.com/12.01/isongbook.shtml
[6]http://www.atpm.com/12.01/earthumps.shtml
[7]http://www.provantage.com/earthumps~220153929.htm
[8]http://www.atpm.com/network/setup/localtalk_ethernet.htm

and use it as a network printer. Is there a way to do this other than by using a hardware bridge?

If not, what might be the best hardware bridge to use?

—Mark D. Randall

> The best way to do what you want to do is with a hardware bridge. My recommendation is the AsanteTalk[9].
> *—Evan Trent*

Thanks For All the Fish[10]

Well said indeed. April 1st will be excellent timing for a *new* beginning.

Since I switched from Windows and bought my iMac in June 2005, I have noticed a significant trend leaning towards attracting the other 95% of the market.

The Mac mini, Mac OS X 10.4, the new mouse[11], iPod Nano[12], and iPod Video, and hardware upgrades all came hurriedly within a spate of a couple of months.

With the new Intel chip, finally there is now level playing field. First we have MacBook Pro and the new iMac. With the coming Mac mini and iBook, the barrier to entry will diminish, and we will see the floodgates open and a tidal wave of new Mac users.

To complete the Intel transition on April 1st would indeed be icing on the cake.

—myvideopodcast

> Yup. No joke. :-)
> The (new) competition isn't (only) Microsoft but also Dell and HP. Just like the game shifted from IBM to Microsoft in the early 1990s, it's shifting again.
> It's very hard to see where the chips will fall, but definitely the landscape is going to be shaken up and there will be (significantly) more, not fewer, Mac users in the coming quarters.
> I wouldn't be surprised to see increasing numbers of staff defects from HP, Dell, and the legacy OEM manufacturers to Apple to build out the new OS X PC production business engine.
> *—Angus Wong*

---

[9] http://www.asante.com/products/productsLvl3/AsanteTalk.asp

[10] http://www.atpm.com/12.02/segments.shtml

[11] http://www.atpm.com/11.09/mighty-mouse.shtml

[12] http://www.atpm.com/11.10/ipod-nano.shtml

Outliner Speed

The thing that bothers me about modern outliners is their speed. (I've used TAO 1.1, OmniOutliner 3 Pro ,and Mori.)

I have an approximately 1,000-page outline in MORE 3.1 that is fast and reliable. It take literally hours to import into these modern programs. If I run MORE 3.1 under Basilisk II emulation on my Toshiba R100 at 1/4 processor speed it takes seconds to load. Same with Classic on my 933 MHz G4 tower with 1 GB of RAM.

On the Windows side, ECCO Professional is similarly fast, though my outlines are not nearly so large in that program.

Mori can only handle one line of text per outline item (which scrolls off the edge of the outline). This is unacceptable for an outliner.

TAO is promising but has a continually changing and awkward interface. (Why is the Gather dialog OK button not accessible from the keyboard?)

OmniOutliner does not have clones. They responded to my feature request by saying, "Unfortunately due to the complexity of cloning we weren't able to add it to Outliner 3," but they are apparently considering it.

What has happened to programming? I recently set up a Quadra 605 computer for the 12-year-old daughter of some friends of mine who is working on her first novel. MS Word 4 and MORE 3.1 work great under System 7.1. Try and run a modern outliner on my wife's dual G5, and it can't even handle a decent sized project.

This is progress? MORE 3.1 is the greatest program ever written, bar none, and I feel like I'll be cobbling together emulators forever.

—Randall Voth

We'd love to hear your thoughts about our publication. We always welcome your comments, criticisms, suggestions, and praise. Or, if you have an opinion or announcement about the Macintosh platform in general, that's OK too. Send your e-mail to editor@atpm.com. All mail becomes the property of ATPM.

Just Because We Can Do a Thing, Does Not Mean We Should Do a Thing

I signed up to review a piece of software this month. Usually I pick the card games and the easy puzzle games, leaving the more complicated stuff to the more adventurous staffers. I downloaded the game and cranked it up. The music was nice, but the game took forever to load. Once it did, the menu items and graphics were fuzzy (wayyyyy low-resolution), and when I put the cursor over the window to click anything, it left shadow images of an exaggerated cursor. I trashed everything and started over, but the result was the same. Finally, I went to the developer's Web site and checked the requirements for the game.

Turns out I needed an OpenGL video card, whatever that is. I wrote to tell the ATPM bosses I wouldn't be reviewing that game, which is no big deal except for the developer (sorry folks!), but we have tons of stuff submitted for review that we don't look at. Not for any particular reason either. We have lives and real jobs, and not everything gets reviewed. For you developers, it doesn't mean we don't love you. We do. Keep developing.

Anyway.

This not having a particular video card has got me to pondering, with the prodding of the staff. I have a seven-year-old computer. How is life for me with a G3 tower and no modern bells and whistles?

I'll tell you up front, it's great. If I wanted something newer and fancier, I'd get it. But it seems silly to me to buy something just because it's there, when what I have works well enough. I was dragged kicking and screaming into OS X, and only so I could use the iTunes Music Store.

I know some of you will leap to tell me what I'm missing: "Oh, everything is so much faster with a new machine!" "Your files are better organized!" "The whatever-it-is will keep track of that for you!"

Here's the deal. I don't want anything to be faster. I am not making stock trades that depend on split-second timing. I am reading a message board and posting replies to other people's comments. If I could post faster, I would say stuff I might regret. I am reading news stories; it won't make so much dif-ference to me if they load in 0.2 seconds instead of 2 seconds. I have to stand up and stretch, anyway.

I don't know what *better organized* would look like. I make folders; I put a few photos and written things in them. I understand why folks who use their Macs to create big projects would need tools to help with that. My projects are an occasional piece for this e-zine, an occasional exam for the courses I teach, and that book I wrote a couple of years ago and haven't gotten published (so yeah, there are also some letters to publishers in there). But everything has a folder, and when I'm done with it, it goes in the Done folder. Every year or so I clean it out. This does not have to be a big deal.

As for the software or OS keeping track of something for me, as long as the virus protection software does its thing, that's all I want. I grudgingly update a few things when the OS says I should, but I got along fine without it for years and am a little suspicious of it now.

It's Time For the Philosophy Part

When publisher Michael Tsai asked me how it is, using an older machine and not doing some of the contemporary stuff, I realized I had been *being* a certain way. I had been being someone to whom it did not occur that I might buy a newer machine, or a newer OS, or a video card. I had probably considered some of those options and rejected them. But that was part of the person I had been being.

What we tend to forget is that just because we have been *being* a particular way, doesn't mean we have to keep being that way. We can be some other way. I understood that intellectually years ago, but had forgotten to live it until a recent experience with [The Landmark Forum](http://www.landmarkeducation.com/section.jsp?top=2)[1]. I am not specifically endorsing the program; it's not a great experience for everyone, but for many it provides some language to reshape the way you think about things. If you want. After doing the program, I remembered I could *be*

---

[1] http://www.landmarkeducation.com/section.jsp?top=2

1

any way I wanted and did not have to stay stuck in a path because of inertia. Inertia is powerful: sometimes it means we stay at rest because we're already at rest.

I considered my not having bought a new computer in so long and decided it was not a blanket resistance to change, or anything childish. I have decided to stay where I am because there is no good reason to change. One day the tower will die or the apartment will catch fire (or something like that) and I'll have to buy a new computer. It is likely to be a 15″ PowerBook, or I may splurge and go for a 17″. But that is $2,000 I could spend on something else right now.

It's like trading in your car. The Honda people keep sending me stuff saying they want to buy back my car, so I'll buy another new one of theirs. And one day, my next car will probably be a Honda hybrid. But that day is far away. The way you win with cars: pay cash if you can or pay off the loan quickly, then drive it until it dies. If I buy a new one every couple of years, it is just renting. My car is seven years old, like the computer, and has 49,000 miles on it. I may still be driving it when I retire. I may never get that hybrid.

I have made the choice to rent housing, for now, but one day I will own the place I live in. I will not buy a new house every couple of years, when a newer, nicer one becomes available. I will pick something I like that works well and keep it. That's what I did with the car and the G3. The G3 has an extra 40 GB drive on it, plenty of room for the little storage we need. The cable connection is speedy enough; we're watching movies on the TV and not the computer. The $30 speakers are fine for what we need. It would be foolish, and even irresponsible, to buy something new.

I am not saying any of you should stop buying fancy new products. It's your money—and your work. But this is what works for me, and if you're in the same place, stay where you are. It's peaceful here.

I Dream of iPod

By the time you read this column, it could very well be out of date. Unfortunately, between our production schedule and my life as art director for two monthly publications, there isn't anything I can do about it, other than maybe write an addendum and update with links.

On February 21, *AppleInsider* reported that Apple will be hosting a "Special Event[1]" on February 28. These "Special Events" have sometimes brought with them new product announcements, so they are anxiously awaited, and I'll be interested to see if in fact a new product is en route. But since it's February 22 as I write this column, I don't know what will be at this event. Keep your eyes open, folks. *AppleInsider* suspects an "iPod boombox"; my money is on a new iBook, which I would expect to be called the "MacBook" (minus "Pro"). I suspect Steve wanted to introduce both at the same time, but only one product was ready to intro. Anyway, we'll have to see.

February is normally a fairly quiet month in the Apple world. With Macworld Expo in the past, there aren't many rumors or many exciting things happening, and not much chatter to pick up on.

But this month, something was different. It was very much an iPod month.

This shouldn't surprise any of you all, given the frequency with which I've reported on it, but the iPod has remained an item of significant interest, probably because it didn't get any innovation at Macworld.

Probably the best food for thought I've seen in a while was *Apple Matters'* wonderful essay on the iPod and the way that Apple's learned[2] from its mistakes. We're all too familiar with the mistakes of the past, from the ADB ghetto and OS licensing to minor details like the stillborn Apple-shaped sticky rubber feet[3] on the bottom of the first Macintosh. Writer Chris Seibold has excellent insight and a great grasp on history, and he makes several points that it's worth considering for *future* Apple

products, as well as the ghosts of products past. He reminds Apple to work at both ends of the market, and to save room for software innovation to make sure that a future title can save their product (viz., VisiCalc, PageMaker, Photoshop), for instance.

It's worth considering Seibold's argument to enlighten the difference between the iPod and the Mac, in modern-day Apple. It explains, for instance, why Apple has continued to make the same mistakes with the Mac that they have been making from the beginning, like crowding out software developers. (Remember "lightning struck twice[4]"?) The iPod team doesn't have all the hardware team's baggage, so perhaps they can afford to take a step back and really reconsider the past. The iPod is marketed better, it's got vastly better market share, and it's all Steve can talk about most of the time. The Mac team should be required to read his essay.

On that note, the *New York Times* notes that the market for iPod accessories is red-hot, and requires a huge amount of attention by accessory makers. There's no question that Apple keeps them on their toes. . .to the tune of $1 billion[5]. What an amazing number. The *Times* interviews Belkin's director of product management, and Kensington's director of marketing, and comes away with the impression that it is the entire ecosystem surrounding the iPod that makes it so successful.

Because of its power in an otherwise crowded market, everyone is always looking to the iPod for innovation and direction. *Wired* reports on an up-and-coming extension to the MP3 format from its creators, Thomson: surround sound[6]. Its previous attempt, MP3Pro, failed because only its players (and now-dead Audion[7]) supported it—and Eliot Van Buskirk can't let the point pass by: "Thomson would also need to convince Apple to put MP3 Surround on the iPod." No if's, and's, or but's.

---

[1] http://www.appleinsider.com/article.php?id=1546
[2] http://www.appleinsider.com/article.php?id=1546
[3] http://www.folklore.org/StoryView.py?project=Macintosh&story=Wet_dreams_and_little_rubber_feet.1.txt&sortOrder=Sort+by+Date

[4] http://www.atpm.com/12.02/bloggable.shtml#burnt-ends
[5] http://www.nytimes.com/2006/02/03/technology/03ipod.html?ei=5090&en=a1164823d8486931&ex=1296622800&partner=rssuserland&emc=rss&pagewanted=all
[6] http://www.wired.com/news/columns/0,70230-0.html
[7] http://www.panic.com/extras/audionstory/

I should add that the iPhone rumor is *once again* back, tied to the iPod and MVNO rumors once again. It's amazing, how often this is resurrected. Like Andrew Sullivan[8], I'm going to start giving out awards for recurring themes.

So I am creating my first award. Let's call this the *JFK Shot By LBJ Award*—given to the month's most ridiculous, most credulous, most conspiracy-oriented wild product speculation. Good candidates, if you want to win this award, write an article involving speculations about Apple-as-MVNO, Apple-to-buy-Disney, or Sony-to-buy-Apple. (Or not.)

To whom does this month's *JFK Shot By LBJ Award* go? Jonathan at *Amphetameme*, who resurrects the MVNO story (of course!) with a creative twist: ubiquitous, total marketing[9] driven by cell service tied into your computer.

> You walk in[to an Apple Store] and as an added bonus you get a credit on your iTunes account for 6 free songs, just for walking in the store standing in front of a particular display, or walking around the store for 2–3 minutes.
>
> [...]
>
> Imagine never having to worry about having a network connection ever again. Your MacBook Pro would have a connection just like Verizon's VZAccess solution, which is essentially a card connecting you to their mobile data network. Add a Vonage or Skype type of solution and you'll be VoIPing your way happily regardless of the Apple device you use. Always connected means Apple gets ahold of you 24 hours a day to feed you content of all kinds, and to market you to death (gently and with style of course).

Sounds like a world I want to live in.

And then, there are always court cases surrounding the MP3 player. This month, it's a class-action lawsuit alleging that the iPod can damage your hearing[10]. Plaintiff John Kiel Patterson, a Louisianan, argues that the iPod's maximum volume output of 115 decibels is too high, and that this makes it defective. I think you can probably predict my response, but here goes: When you turn the

volume *all the way up* on a device, in general, you assume the risk of listening to something at maximum volume. There are exceptions to this rule—several years ago, Siemens recalled[11] its 65-series cell phones because it was possible for them to play too loudly *by accident*—but whether the iPod produces 115 dB or just 100, like in Europe, full volume is full volume. Should a music player's maximum output be physically limited to the highest possible without significant damage—and just what is that? I have never gone above 3/4 of my iPod's volume, for good reason, and anyone who's willing to put up with 115 dB is asking for damage.

Not What You Expected

- Is it reasonable for an application to install itself silently, and, when deleted, *reinstall* itself? Isn't that what we call spyware? Bill Bumgarner discovered[12] that Unsanity's Smart Crash Reports[13] was being installed on his computer by Karelia's Sandvox, and posted about it, being angry that the software was being so abusive of his user rights as to keep reinstalling itself. (This, not iTunes[14], is the real malware.) John Gruber analyzed[15], and found that SCR isn't to blame in and of itself, but rather, applications can choose to automatically install and reinstall SCR if it's deleted...which wouldn't be a problem, except that it's actually a system (versus application) hack. Karelia has since backed down[16] from installing SCR automatically; and, as a consequence of all the to-do, Gruber reports that SCR will now prompt users[17] with a dialog box.

- One of the theoretical benefits of dual-core CPUs is that they consume less power than having two CPUs—they need less power for cooling as well as for operation. Apparently, the Intel iMac is making good on that promise,

---

[8] http://www.andrewsullivan.com

[9] http://www.amphetameme.org/?p=892

[10] http://www.cnn.com/2006/LAW/02/01/ipod.suit.ap/index.html

[11] http://www.consumeraffairs.com/news04/siemens_mobile.html

[12] http://www.friday.com/bbum/2006/01/20/sandvox-hidden-feature/

[13] http://www.smartcrashreports.com/

[14] http://www.atpm.com/12.02/bloggable.shtml#burnt-ends

[15] http://daringfireball.net/2006/01/smart_crash_reports

[16] http://www.friday.com/bbum/2006/01/20/scr-response-from-sandvox/

[17] http://daringfireball.net/2006/02/scr_addenda

and one-upping the Intel competition: Andrew Fergusson at *Enterprise Mac* tested his 20″ iMac and found that, minus monitor, it draws 63 watts at peak[18]; including monitor, it's 95 watts. Apple rates it for 120 watts. I would just like to note how ridiculous a 95-watt dual-core computer operating at 2GHz is, for the record: according to a Macalester College survey[19], a 1.6GHz Power Mac G5 draws 120 watts, not including monitor, and a 1GHz PowerBook G4 15″ pulls 18 watts on a full charge. As Andrew notes, find a PC as powerful as the Intel iMac that uses as little electricity.

---

[18]http://weblog.infoworld.com/enterprisemac/archives/2006/02/imac_keeps_its.html
[19]http://www.macalester.edu/its/faq/power_usage.html

Dossier and Outliner Web Interaction

There's lots of *ATPO* work going on behind the scenes. In particular, we have made some beginning progress on the Web site planned as a sort of wiki companion to *ATPO*. Some folks have already volunteered to help, but we'd like others. We plan to start with a wiki containing sections on an expanded notion of outliner features and use patterns from our earlier[1] columns[2]. As with the columns, we plan to have comprehensive examples from the applications we track. Naturally, this will depend on the community to build and maintain, but I have confidence that it will work.

We may be able to announce something next month.

I've had lots of suggestions for forums, and other wiki sections. If you have some, send them to me.

Dossier[3]

I've picked Dossier as the outliner to examine this month. The reason is that I'm fascinated by how the desktop and the Web (or what follows next on the Internet) will be interacting in the future. Outlining seems to lean up against snippet, note and "knowledge" management, writing workflows, and that stew of things that are collected from and published to the Internet.

We could have chosen the very similar MacJournal[4] a more mature and arguably feature-rich product with similar layout that also uses outlining.

MacJournal's Icon

We chose Dossier for three reasons. One is that MacJournal will soon become a version 4 product[5], changing and improving quite a bit. Another is the outlining layout. MacJournal's use is logical, what you might expect. "Folders" (which they call journals) and notes co-exist in the outline as they do in the Finder. Dossier's is different, requiring a new pane for the notes list. And at *ATPO* we're interested in choices.

The third reason is Dossier's support for the still rare "smart folders," equally rare AppleScript support, and the ability to drag files, including PDFs, to be stored.
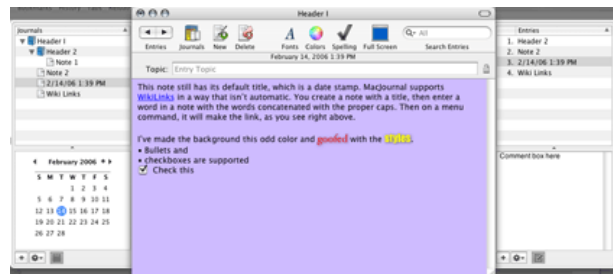
MacJournal's Layout

I don't suppose anyone can predict what will come of Web publishing, so we'll have to watch what the market pulls us into. As OS X builds more

---

[1] http://www.atpm.com/9.10/atpo.shtml
[2] http://www.atpm.com/9.12/atpo.shtml
[3] http://www.vortimac.com/dossier/index.php
[4] http://www.marinersoftware.com/sitepage.php?page=8
[5]

[5] http://danschimpf.blogspot.com/2006/01/macjournal-40a1.html

capability into the operating system, other components become available (perhaps as open source) and user conventions evolve, these Web publisher applications get easier to build. So I expect many blog-capable note-authoring applications from small, even one-person programmer shops, each of them exploring some small niche or new evolutionary path.
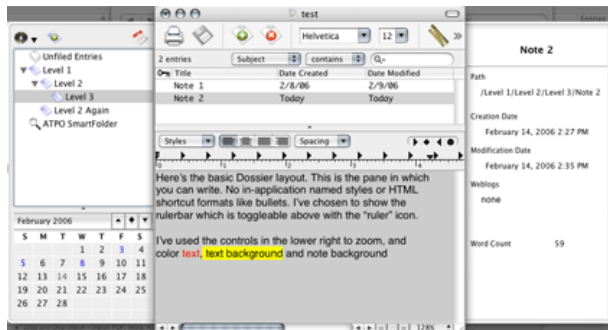

Dossier's Icon

Dossier, a $25 Cocoa application from Vortimac Software, interests me. I never became aware of version 1 and presume it had no nesting capabilities. It resembles some of our three-pane notebooks. All of these differ a bit in how they break up the three panes. In this case, in the left pane you have a hierarchical list of "folders," though the icon used is not a conventional folder icon. In the top on the right is a list of all the "entries" or notes in that folder. That list allows room for provided columns (date created, modified, and whether the note is encrypted).

Below on the right (or optionally on the far right) in the third pane is the note itself in an editable field.

Below on the left (as with MacJournal) is a toggleable calendar.

Dossier's Layout

So far, it is unremarkable. As to the outlining operations on the left, they allow the usual dragging operations where the order and hierarchy can be rearranged. There is no cloning or linking of headers. Input of snippets and Web references is minimal, but you can readily drag a PDF or Word document and have it display nicely as a note.

But if you are looking at this as a power outliner, you'll be disappointed, except for the happy surprise that it supports smart folders that clone notes. It is the cheapest outliner to do so.

Oddly, few programs that outline do this at all. Mori[6] and Tinderbox[7] are the only ones in our power outliner list that do this in the usual way. The screenshot shows the dialog where you set up your smart search criteria. NoteTaker[8] and NoteBook[9] do it in an unusual way.
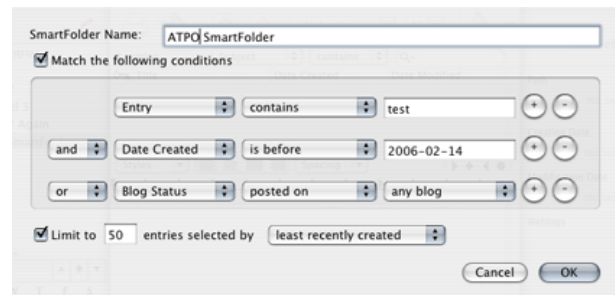
Smart Folder Specification

Another feature I like—also rare—is the ability to open multiple windows of the same document. You can easily do that and drag and drop both "journals" and notes as if they were in the same window. Notes, incidentally, can be opened in their own windows as if they were in a standalone editor.

Like the two new outliners mentioned last month[10], Dossier uses the open source SQLite database engine now supplied with OS X.

The use pattern Dossier targets is "journaling," where most of the content is text notes generated in the program. But instead of just private diarists, it also targets that new brand of diarist we've called a blogger. In this regard, Dossier runs up against MacJournal and the heavyweight, Tinderbox.

---

[6]http://www.hogbaysoftware.com/product/mori
[7]http://www.eastgate.com/Tinderbox/
[8]http://www.aquaminds.com/home.jsp
[9]http://www.circusponies.com/
[10]http://www.atpm.com/12.02/atpo.shtml

The Blogosphere

Blogging is publishing. A blogging tool needs to support the creation of the published material as well as its publishing. Usually, we discriminate blogging from other Web publishing as supported by some server infrastructure and consisting of regular bits.

Outlining supports good writing by capturing fresh ideas quickly in a structured system, gathering source material in an organized and recallable way, structuring recalled and new notions to "make sense," polishing and publishing the result, and storing it for recall or reuse in the context of other material. In these functions, outlining acts as one of the eminent ways of interacting with and displaying documents.

The Internet factors into this in two main ways. The first is that many useful sources, ideas, and references are found on the Internet, via mail, feeds, pages, or whatever. Curio[11] and DEVONthink Pro[12] (via DEVONagent[13]) have special search engines to facilitate this. Tinderbox and NoteTaker accept RSS feeds internally. Many outliners are Web-savvy and have facilities to store, reference, and search many types of incoming information.

The second way the Internet touches is in the publishing task. Blogs present special challenges to publishing. Most blog clients now allow bloggers to treat blog entries as if they were e-mail messages. So in theory, we should see a confluence of traditional information snippers and stores that combine the features of applications like StickyBrain[14] but that subscribe to RSS feeds, heavy duty mail applications like Mailsmith[15] that have the ability to quote and reference published material in the entry or not and by the author or not, and popular blog clients like Ecto[16] and MarsEdit[17] that make the tunnel to blog servers painless.

The better these tools, the better the blogs. I expect many applications along these lines, and many of those that leverage *ATPO*-noted capabilities.

---

[11]http://www.zengobi.com/products/curio/
[12]http://www.devon-technologies.com/products/devonthink/overview.php
[13]http://www.devon-technologies.com/products/devonagent/overview.php
[14]http://www.chronosnet.com/Products/sb_product.html
[15]http://www.mailsmith.com/products/mailsmith/index.shtml
[16]http://ecto.kung-foo.tv
[17]http://ranchero.com/marsedit/

A Personal Test

Dossier attempts nothing so grand as what I've outlined. It is set up to make datestamped journal entries that then get seamlessly published to one or more of the popular blog services or protocols: Live-Journal, Blogger, and Atom.

Outlining helps you manage your notes whether they are published to one of several accounts or not. And it helps, obviously, in collecting thoughts and material for new notes—sort of notes-for-notes.

I usually don't share with readers how I test these applications. In general, what I do is move a big project of mine over to NoteBook or Curio or whatever I want to be able to talk about in upcoming columns. But the blogging exercise is different because I don't blog in the usual way.

(Oh, I opened a LiveJournal[18] account just to see how Dossier worked. The notes that were supposed to be published were. But there's a whole social networking dynamic at work in blogging that I couldn't dive into. I'm unable to say anything insightful about that, or how this tool or outlining would support it.)

I have three projects that might look like blogs. The first one is the one I usually use to exercise the applications I talk about here. It concerns film commentary and a study. I'll get to that in a moment, but first I'll mention the other two briefly.

I am engaged in a complex project that has distributed engineers and clients. It involves many principles and disciplines, and no one person understands the whole thing. So we use all sorts of models, mostly graphical in nature. I'm sort of a coordinator, and so I must publish a blog of sorts to let everyone know what's happening, what's changed, and so on.

What's needed in this case is a graphical blog where individual charts and diagrams are displayed, blogwise. And a coherent Keynote[19]-like presentation of the whole project that anyone can reference or more likely grab to show some curious Congressman or whatnot.

We've exercised Keynote, Curio, and OmniGraffle[20] with OmniOutliner[21], all with LinkBack[22] in different ways for the blogging parts, and most *ATPO* power outliners for the front end. There's a need for an (unpublished) daily journal on this project. Next

---

[18]http://www.livejournal.com/
[19]http://www.apple.com/iwork/keynote/
[20]http://www.omnigroup.com/applications/omnigraffle/pro/
[21]http://www.omnigroup.com/applications/omnioutliner/pro/
[22]http://www.linkbackproject.org/

column, we'll report on the ConceptDraw suite[23], and you'll know it was used on this task.

The second project is more like standalone blogging. From time to time, I get the itch to write about something and publish it. This is new, so I've only used three different power outliners. These short pieces (about 800–900 words) have a huge amount of source material I keep in the outlining tool I use to write it. No matter what outliner I use, the "blogging" bit is a bunch of QuicKeys[24] macros that send the written piece into the ether where it is translated into 7 or 9 languages, posted, and distributed elsewhere[25].

Ted's New "Blog"

But the third project that involves something like blogging is the one—the big kahuna—I usually use to put the *ATPO* power outliners through their paces. I'm doing a study of movies. I have a huge amount of background information for this study, everything from film clips to notes. Everything. And it really is huge and extremely structured. In fact, the resulting structure is the very point of the study, which in short is how to categorize film narrative. The report will be an incrementally created online book[26], which is hardwired to Tinderbox.
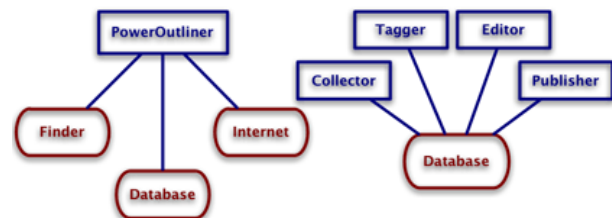
All this research moves around among my test outliners (and other applications). I budget no fewer than four hours and often six a day to produce an entry in my "blog" of sorts, regular comments for ordinary readers on specific movies I watch[27]. Each day I receive many feedback e-mails on these comments, all of which I store and many which I use later.

It is an enormous undertaking, and one that depends on the ability of deep manual and automated structure. Smart folders and lots of ways of assigning metadata are useful for this. Each new tool teaches me something else about organization. Last month we looked at Mori, which has some of the same strengths of Dossier: SQLite, smart folders, AppleScript, and multiple views that allow dragging as if it were a split view of sorts.

I'll tell you what I learned from Dossier (and MacJournal). There are more ways to link workflows than I thought, and I now see the Web as a data store. The reality is that *ATPO* readers are so bright and complex and imaginative that no tool will be fully satisfactory. Probably several tools interacting in different constellations will be the answer for many.

The way to connect tools can be by file transfer (like OPML or something better but XML-based). Or by embedding, like LinkBack or external file referencing. Or perhaps by nice custom scripts. Now we have two new ways, maybe.

The first we hinted at last month, by perhaps integrating data in the Core Data facilities of OS X and using different outliner "front ends" on the same data, for different purposes. The second is the ability to publish to and receive from the Web, treating it as a readable information store as well as for "final" publishing. I expect Dossier to develop in this direction. A final evolution may federate information in the Finder, on the Internet, and in Core Data.

Attractive Futures

---

[23]http://www.conceptdraw.com/en/products/cdsuite/main.php

[24]http://www.startly.com/products/qkx.html

[25]http://www.project-syndicate.org/contributor/810

[26]http://www.filmsfolded.com

[27]http://us.imdb.com/user/ur0643062/comments-index?order=useful&summary=on

Next column, I expect an exploration of workflow, and the application we'll play with along the way will be ConceptDraw MindMap[28] and its associated suite.

Post-Microsoft Entropy

Last month I was watching EU Justice Commissioner and European Commission Vice-President Franco Frattini on BBC News talking about the growing Islamic cartoons controversy, calling newspaper publication of caricatures of the prophet Muhammad "somewhat imprudent," while acknowledging that freedom of expression was a "'founding principle' of most European nations." This is the fair-minded man who holds in his hands the, shall we say, manhood of Microsoft. With one small squeeze Franco can make Steve Ballmer dance more lively than his famous monkey impersonation.

The current to-ings and fro-ings between Microsoft and the European Community are just some of the many cases Microsoft is fighting around the world, and some would say this is due to the seemingly toothless results of American Justice in the US anti-trust case. Nevertheless, Franco, with one squeeze, could extract ten percent of Microsoft's gross profit, which could easily be in the region of forty billion dollars according to *The Register*. A nice sum by anyone's standard, and one which would severely dent their piggy bank, rumored to be around fifty billion dollars.

No doubt we shall see Microsoft's usual bag of tricks, delaying tactics, dodgy videos, and lost e-mails. In reality they will probably only get a modest fine of a few hundred million dollars—nothing compared with their anti-competitive behavior ruled illegal both in the EU and the US, as well as being questioned around the world. But if Franco Frattini were to tighten his grasp on Microsoft's "round objects" and they did cough up and breathe their last breath, what would it mean to the world?

Probably nothing at all. After all, the millions of Windows computers will still carry on working. Microsoft Word will still produce the same number of newsletters with its oh-so-friendly clip art, centered and distorted text headlines all done in Times italic, heavy box rules, and ridiculous single-column layouts. Microsoft Excel will not suddenly stop crunching numbers and will still automatically add a fraction of a penny to my Mac dealer's sales-tax miscalculation. PowerPoint will still dominate business meetings where more time and energy will have been spent on making the on-screen presentation than on thinking through the relative merits of the subject under discussion. Of course, eventually, Post-Microsoft entropy will create its own black hole into which all things Gatesian will gravitate as entropic force exerts its inevitable pull.

Perhaps, or more probably, the world will be a better place. Just as the work of Stephen Hawking, et al., has shown that entropy leads to an expanding universe, the world without a monolithic giant such as Microsoft will result in an entropy gap, the further in time from Microsoft's demise. Already, Microsoft Office has been shunned by some of the world's governments, as free, open-source software has taken its place. Linux, BSD Unix, and other free operating systems are taking an increasing hold on personal computers. For example: a one-man-band plumber I know got so fed up with his kids' Internet use dragging all manner of infections onto his computer that he junked Windows and runs Linux instead. He is no geek, and unless it involves ballcocks, bleeders, and the contents of his large lunchbox, his conversation can be intellectually restricted.

A lot of this movement is due to the tax Microsoft puts on its products, one which most of its users seem glad to pay, year after year. Here in the world of Apple, we are not immune and we too have to cough up every year or so for new operating systems, but at least the old software still runs on it. That is, until MacIntel arrives on the scene and Classic pops its clogs at long last. As a long-time member of the publishing world, I cannot wait for QuarkXPress 4 to disappear and, come to that, QuarkXPress itself unless up-coming version 7 drops in price, gets true Adobe PostScript, and stops crashing for no apparent reason.

Which way the world would turn is a moot point, whether to open source or proprietary solutions. This is where companies such as Apple will have to be very careful. While they publicly embrace open source and have bet the business on the move to Free BSD in Next. . .er. . .Mac OS X, in reality Apple's solutions are as locked as Microsoft's. Would we want to see

the rise of another company with so much influence on the world? My bet is that we would just take the path of least resistance, and if it comes from Apple, so much better for us already halfway down the path. Whether others such as IBM, now ex-partner with Apple, would let it happen, is entirely unlikely. But what interesting times we would live in.

Performing a Video Extraction

When my trusty VCR finally died, I had tons of old videotape footage lying around the house. While searching for a replacement, I decided to join the DVR revolution. After all, it seems like everyone was replacing traditional VCRs with some kind of digital recorder. Why shouldn't I do likewise?

After some searching, I settled on a TiVo unit with a built-in DVD burner. I chose this unit[1] because I could connect a borrowed VCR and transfer the content of my videotapes to the unit's hard drive. That way I could salvage the tapes without having to buy a VCR or dedicated video capture solution.

With my usual dive-right-in attitude, I purchased the TiVo and connected it to our wireless network. With any luck, a Mac version of TiVoToGo would be available before I had time to start transferring the tapes. If not, surely I could burn the files to DVD and bring them to my Mac to edit in iMovie or Final Cut Express. This should be the easiest project I had undertaken in quite a while.

This Is Easy—Not

Fast-forward several months. It's time to start transferring and editing tape. TiVoToGo still isn't available for the Mac, so I'll have to burn the files to DVD to put them on the Mac. It reminds me a little of the "sneaker net" days, but that's a minor inconvenience. I've already spent several hours recording tapes to the TiVo in real time, and half an hour or so later the DVD is burned and I'm ready to pop it into the Mac and start editing.

I insert the DVD into my Mac, and it plays without a hitch, but that's where the problems start. DVDs capable of being played in set-top DVD players store their video content in a series of DVD Video Object (VOB)[2] files. The important thing to remember is that these files present problems for most consumer-level video editing software—including iMovie and Final Cut Express. Before being imported and edited, VOB files must be converted to a format the iLife suite understands.

Converting VOB files for use in iLife or Final Cut Express presents two problems. First, these files store the video content that we want in a format known as MPEG-2[3]. Even though it creates standard DVD files, iDVD does not import[4] MPEG-formatted video.

The second problem presented by VOB files is that they have been muxed. Muxing, also known as multiplexing[5], involves combining several streams of digital information into one file. In the case of DVDs, muxed files typically combine video, one or more audio files, and possibly subtitles, in one file. Before we go any further with the project we need a tool that will convert these files into something that iLife can comprehend. Let's find our tools and get to work.

Gather Your Tools

I looked around for a while before I found a program called MPEG Streamclip 1.5.1[6]. According to the information page, this program is compatible with Mac OS X 10.2 and higher. It works with QuickTime 6 under Jaguar and QuickTime 7 under Panther and Tiger. Although the program itself is free, in order to examine VOB and other MPEG-2 files you will need to purchase and install the QuickTime MPEG-2 Playback Component[7] (currently $20). The current version of MPEG Streamclip can run on Intel processors through Rosetta, and on PowerPC Macs. A Universal version is anticipated at a later date. MPEG Streamclip can be used as a video player, but its file conversion capabilities are what caught my attention.

Since I eventually want to put the edited footage on DVD, I am most interested in the conversion from VOB files to DV format. This is an important consideration, since Apple recommends that for best results movies that are going to be used in iDVD should be in DV format with an audio sample rate of 48KHz.

---

[1] http://www.pioneerelectronics.com/pna/product/detail/0,,2076_4139_22912926,00.html

[2] http://www.afterdawn.com/glossary/terms/vob.cfm

[3] http://www.afterdawn.com/glossary/terms/mpeg-2.cfm

[4] http://docs.info.apple.com/article.html?path=iDVD/5.0/en/24.html

[5] http://www.afterdawn.com/glossary/terms/multiplexing.cfm

[6] http://www.alfanet.it/squared5/mpegstreamclip.html

[7] http://www.apple.com/quicktime/mpeg2/

MPEG Streamclip is capable of handling this conversion quite well. Now that we have found the right tool, let's get down to work.

Getting Down to Work—Loading the Files

After downloading and installing MPEG Streamclip and the QuickTime MPEG-2 Playback Component, it's time to get to work. Insert the DVD that you want to retrieve footage from and launch MPEG Streamclip. Choose Command-O, navigate to the DVD, and open its VIDEO_TS folder. A basic DVD, one without complex menus or additional data content, will contain three types of files: IFO, BUP, and VOB. IFO files contain information that the DVD player needs in order to understand the disc's structure such as total running time and the number of chapters. BUP files are essentially backups of the information contained in the IFO files. The VOB files are the ones of interest to us because they contain the video information we are attempting to extract.

There are several VOB files on any given DVD. How do we know which VOB to attempt to extract? Thankfully there is a pattern to the order of these files. The VIDEO_TS.VOB file contains the main background screen for the DVD. The naming pattern for the remainder of the VOB files provide clues to their content. Each title on the DVD has a corresponding series of VOB files. The VOB files for the first title will all have the number 01 in their title. VOB files for the second title will all have the number 02 in the title and so forth.

Let's assume for a moment that I want to extract the first thirty minutes of the first title on the disc. Double-click the first VOB file that has "VTS_01" in the title. MPEG Streamclip will ask whether you want to open just that file or all of the files for that title. I usually open all of the VOB files for a given title, because I want to extract multiple clips from the same piece of footage. If you have a good idea which file contain the information that you need, it is possible to open just that file.

When I ran tests for this article I used Streamclip's option to open all VOB files. I wanted to see how well my system would handle such a task. In about a minute, the first video frame appears in the editing window. This window has controls similar to QuickTime Player. From here you can play the video or scroll to the footage that you want to recover and mark editing points. It doesn't take long to get used to this window.

The Editing Window

On some videos, the first frame appears in the editing window when you open the file. Sometimes I have to use the playback controls to scroll forward a frame or two until a video frame appears in the window. Once you have found the first frame that you want to salvage, go to the Edit menu and choose Select In. Once that is done, you can use the playback controls or the slider to move to the point where you want to stop. Now return to the Edit Menu and choose Select Out. Select In and Select Out mark the beginning and ending respectively of the clip that you want to extract.

Now that you have marked the beginning and end of the clip, it's time for extraction. Don't worry; unlike some trips to the dentist, Streamclip makes this about as painless a process as possible.

Extracting the Video

Since we are ready for extraction, let's take a look at some of our options. A quick trip to Streamclip's File menu reveals several options for exporting, converting, and demuxing MPEG files into a variety of other file types. Since the goal of this project is to move the files to iMovie or iDVD, we are interested in the Export to DV option. Choosing this option brings up a dialog allowing us to set exporting options. The default compression is set to DV25. The drop down menu labeled Standard is already set for NTSC with a screen size of 720 × 480 and a frame rate of 29.97. These are the standards for DVD in the US. If you need the PAL standard, which is common in Europe and around the world, you can choose that as an option from this menu. If I understand the documentation correctly, inserting a PAL disc would automatically change the settings to those needed for

a PAL DVD. Make sure that you know which format you need.

DV Export Options

A variety of other options can be set from this box, including whether to set the screen to the standard 4:3 aspect ratio or the 16:9 ratio needed for widescreen formats. There are a variety of other settings here, including adjustments to color and volume, as well as accounting for progressive video. For my purposes, I am interested in the checkbox that says "Split DV Streams in Segments." This will divide the resulting file into iMovie-friendly segments that are slightly less than 2 GB.

When you are finished selecting options, choose Make DV to close this dialog. Closing the dialog brings up the standard Save As dialog allowing you to choose where the file will be stored. Extracting video can consume drive space quickly. My test DVD, for example, contained six hours of video footage. I selected a half hour of footage, extracted the video, and saved the resulting files. Four files were created, which consume a total of 6.03 GB of drive space. From the time that I closed the Save As dialog until all files were saved, the process took 13 minutes 37 seconds. Testing was completed on a dual-2GHz

G5 with 512 MB of memory. If more than one file needs to be saved, Streamclip saves the files with a .dv extension and three-digit number. This makes it easier to keep the clips in sequence when importing them into iMovie or iDVD. Importing the resulting files into iMovie takes about 1 minute 15 seconds for each file. If you only need to do basic video trimming and editing, you may not even need iMovie. MPEG Streamclip functions well as a basic editor. If you are counting on this program to extract video from encrypted DVDs, you'll have to look elsewhere. That's one thing it won't do.

Final Thoughts

Believe it or not, once I got started this project was fun. There were some problems along the way. It was testing for this project that convinced me I was having the memory problems[8] I wrote about a few months ago. I tried several pieces of software to complete this project. Perhaps one day when I add a little memory to my system I will write a comparison of the software. Along the way I found a nice piece of free software for my digital toolkit.

Copyright © 2005 Sylvester Roque, sroque@atpm.com.

---

[8]http://www.atpm.com/11.08/howto.shtml

How To

by Matthew Glidden, mglidden@atpm.com

Installing a SuperDrive Into a Macintosh Cube

In an attempt to further extend the longevity of a classic (if short-lived) Apple design, I recently added a SuperDrive CD/DVD burner to my Macintosh Cube. As the specifications[1] for the original Cube state, it came with a read-only DVD-ROM drive. Good for playback, not so good for media creation. What I want now is a fast 8x DVD+-RW model that can read, write, and re-write as required.

Though this project involves an internal drive, remember you can easily add an external DVD burner via the Cube's FireWire port. It takes no special skills and is easily portable. I used an external SuperDrive for a while, but it's a bulky presence on my desk. Better for me would be a new, high-speed internal replacement that would perform faster without taking an outlet on the power strip.

Note!

There is a downside to adding a SuperDrive to your Cube. You must set the internal hard drive to its "Slave" setting, since the SuperDrive is hard-wired as the "Master." When you do this, the hard drive can't be detected as a "target" drive by other computers or mounted OS install disks. This may make it hard to transfer its data automatically as part of an OS installation process. (I was careful to install Mac OS X Tiger before making the hardware install.)

Picking a Drive

The new drive is a laptop-style, Panasonic UJ-845-B[2] DVD-RAM drive (Apple re-brands the Panasonic drives as their "SuperDrive"). There are several similar models that work in the Cube, so I chose a known good model listed in a CubeOwner.com forum.

You can purchase the bare drive, as I did, and install it yourself. Companies like MCE Technologies offer a SuperDrive upgrade[3] for those who want more help with the process.

Other Parts and Some Technical Details

SuperDrives are thinner than the original DVD-ROM drive, so you must adapt them to fit the same internal bracket. If you buy the bare drive, as I did, you need three additional pieces:

- 50-to-40-pin IDE adapter board[4]

- IDE-to-floppy power cable[5]

- Support adapter that mounts the new drive into the original bracket

You can build a support bracket by hand. See this CubeOwner.com gallery[6] for some example pictures and commentary.

Measuring and building your own bracket is tricky and may take a while. It's definitely the most specialized part of the process. If you want to avoid it, CubeOwner.com forum member "parism" also makes special brackets for $25 by request. That's what I used and was quite happy with the purchase. (Join CubeOwner.com and send a message to "parism" to buy this bracket.) All told, it costs around $160 for the drive and parts.

Another Note!

Once you have everything, you can start the DVD upgrade process. Since you open up the Cube and muck about inside it, this is your warning that what's described below is without warranty and the safety of your computer is up to you! Don't go crazy making the upgrade unless you're confident opening the case and taking things out of it.

Installation

Start by removing all cables from the Cube except for the power cable. Touch the metal case to ground it and then remove the power cable. (Using a wrist grounding strap[7] throughout this process is

---

[1]http://docs.info.apple.com/article.html?artnum=58683

[2]http://www.dfwdepot.com/dvd-ram/index.php?main_page=product_info&products_id=32

[3]http://www.mcetech.com/cubedvdr8dl.html

[4]http://www.dfwdepot.com/dvd-ram/index.php?products_id=11

[5]http://www.directron.com/idpowconad.html

[6]http://cubeowner.com/gallery/combo_install?page=2

[7]http://www.outletpc.com/c0181.html

recommended to avoid building up a static charge and damaging the electronics.)
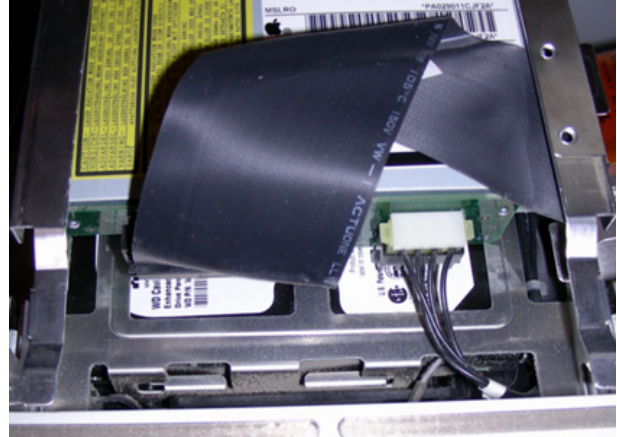

Remove the screws holding on the top plate. Carefully unplug the power button and set the top aside.
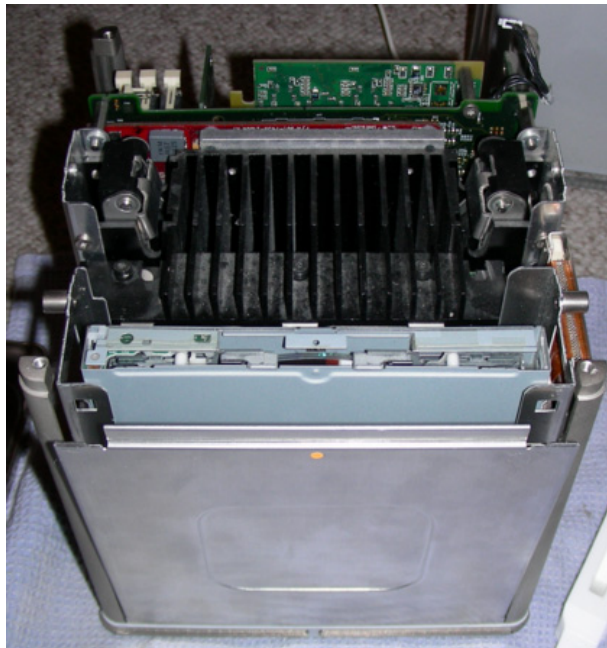
Slide the silver plate away from the DVD drive. Remove the screws holding the DVD drive in place with a Torx wrench, available at most electronics and computer stores. After removing the screws, unplug the power and data cables and slide the drive out.


Store the old drive safely–you'll need it again if something goes wrong with the new one!

Connect the IDE adapter board to the DVD drive and the floppy power cable to the adapter board. (There should be only one way to do each of these.) Attach the mounting bracket.

In this picture, the white mounting brackets were created by CubeOwner.com user "parism."

Slide the new drive into position and connect the power and data cables. Note the data cable is reversed from how it connected to the original drive. This requires an odd double-fold to correctly position the cable.
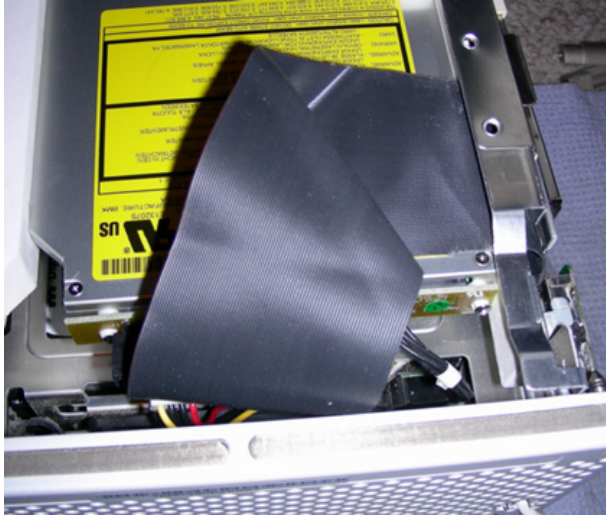
Be patient and don't force anything. Don't worry if it takes a while to get the cables and drive to fit properly. Once it's in place, replace the screws and check out your Cube's newest inhabitant.
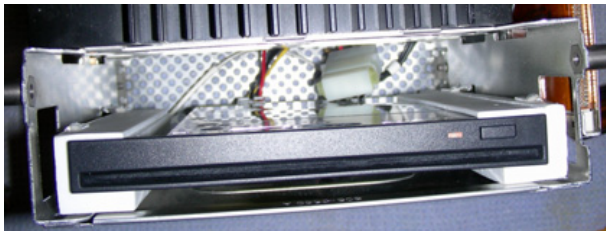
As mentioned earlier, your internal hard drive needs to be set to "Slave" or it won't work with the DVD drive, which is hard-wired as "Master." In my system, the hard drive jumpers were behind the AirPort mount panel, which unclips and hinges open easily.

I looked up the Slave setting for the drive at the manufacturer site, made the change, and clipped the AirPort back into place. (Some drives show Master and Slave settings in a diagram on the drive itself.)

The drive is installed, so it's time to put the Cube back together. Replace the silver plate and top panel, put it in the case, and reconnect the cables.

Testing the New Drive

Properly installed, the new drive should work easily with DVD-friendly programs like iPhoto and iTunes. First, put a disc into the drive. Note that the drive may "grab" the disc at a lower point than the original drive. This shouldn't be a problem, just a difference in the drive design.

If the disc mounts and you can read its files, great! Now try burning some songs from iTunes or pictures from iPhoto. Both CDs and DVDs should burn without complaint in compatible software. (Some software programs can't use every burner model, though most should support Panasonic drives.)

If reading a disc or burning a disc doesn't work, don't panic! Check the installation process again. Did you get everything plugged in? Did you set the hard drive to "Slave?"

If everything looks good, post your setup details to CubeOwner.com or another support site and see if people can help. Users of discontinued systems often find others trying to do the same things, or someone who just solved a problem they're having.

Summary

High-performance CD/DVD use and creation isn't limited just to systems with shiny covers and that "new Mac smell." An upgrade, even one that requires some extra pieces, breathes new life into a system that's served you well for years.

A new DVD burner saves desk space and presents a challenging task for the handy Cube owner who likes a project and wants to spend less than $200. The new system may not push Mac G5s for power and performance, but will give you a nice jump in utility and make it that much easier to start your own movie or music studio.

Desktop Pictures

Quartz Composer

Quartz Composer[1]

This month's desktop pictures[2] were created from Quartz Composer models[3] developed by Futurismo Zugakousaku. Apple's Quartz Composer[4] is a "groundbreaking graphics development environment that allows you to explore the incredible power of the graphics stack of Mac OS X Tiger."

Previous Months' Desktop Pictures

Pictures from previous months are listed in the desktop pictures archives[5].

Downloading All the Pictures at Once

iCab and Interarchy can download an entire set of desktop pictures at once. Use the "Web ▷ Download Entire Site" command in the File menu, giving it the URL to the pictures page above. In iCab, use the Download command to download "Get all files in same path."

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 10.3.x and 10.4.x

Choose "System Preferences..." from the Apple menu, click the "Desktop & Screen Saver" button, then choose the Desktop tab. In the left-side 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. Select the Screen Saver tab which is also in the "Desktop & Screen Saver" System Preferences pane. If you put the ATPM pictures in your Pictures folder, click on the Pictures Folder in the list of screen savers. Otherwise, click Choose Folder to tell the screen saver which pictures to use.

Mac OS X 10.1.x and 10.2.x

Choose "System Preferences..." from the Apple menu and click the Desktop button. With the pop-up 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.
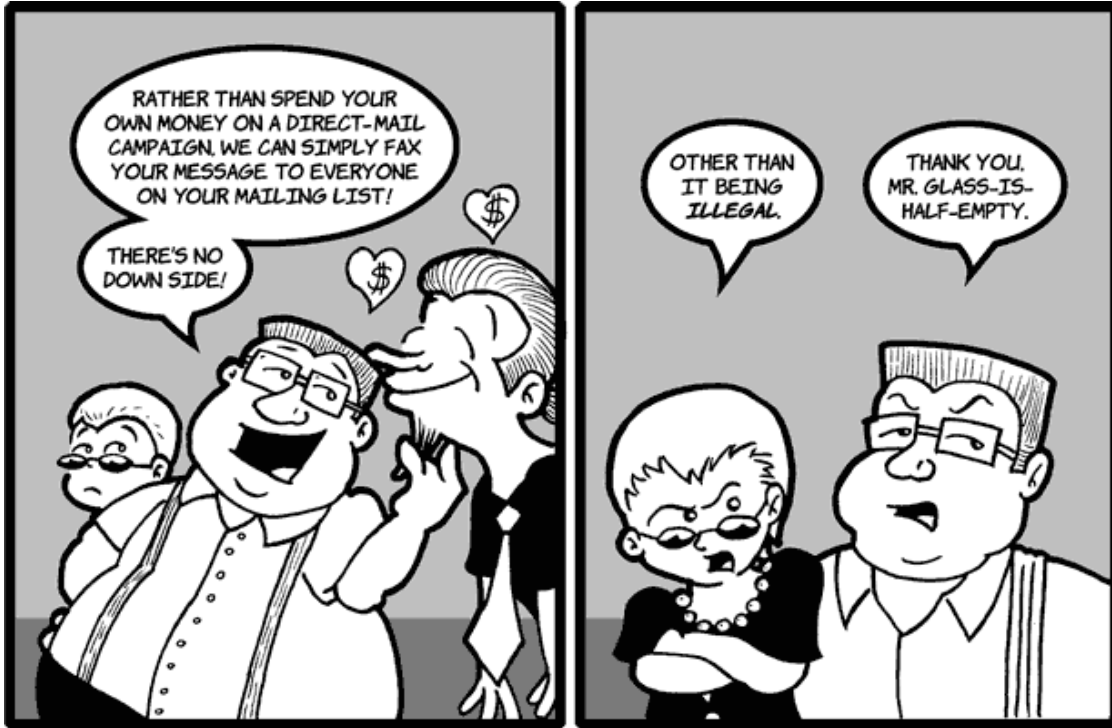

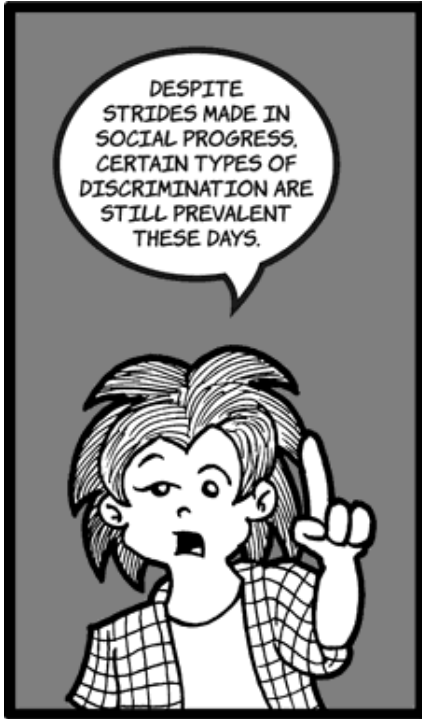[1]http://www.atpm.com/12.03/quartz/
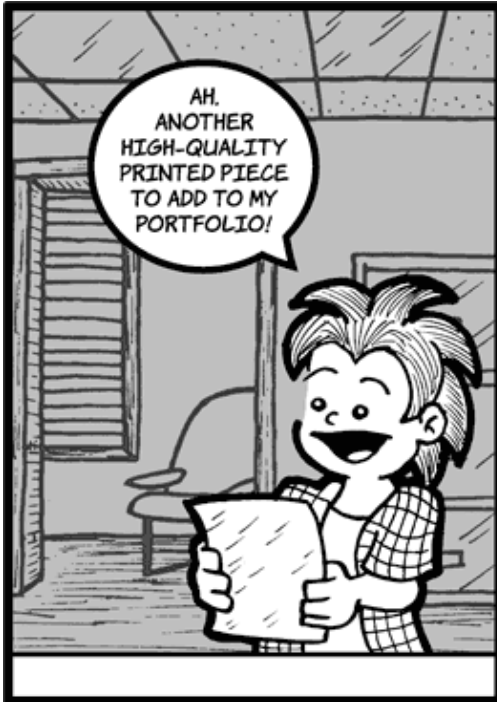
[2]http://www.atpm.com/12.03/quartz/

[3]http://www.zugakousaku.com/index.cgi?quartz&samples&en&

[4]http://developer.apple.com/graphicsimaging/quartz/quartzcomposer.html

[5]http://www.atpm.com/Back/desktop-pictures.shtml
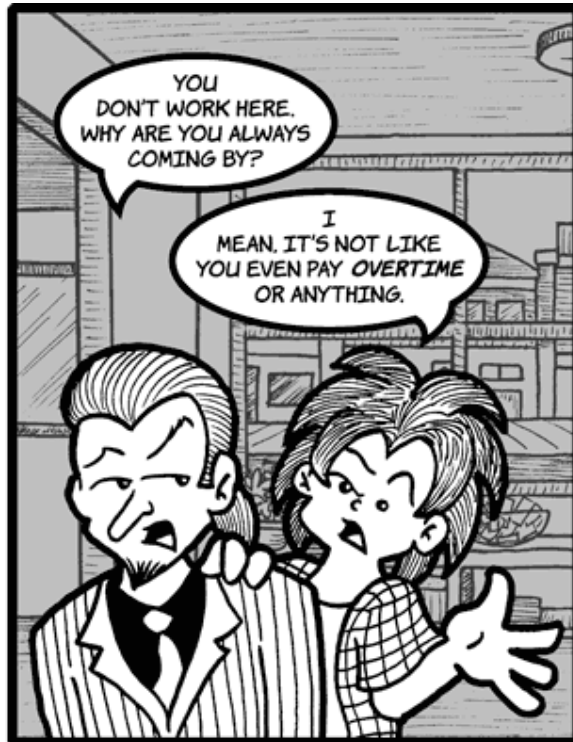
Chessmaster 9000

Developer: Feral Interactive[1]
Price: $40
Requirements: Mac OS X 10.2, 700MHz CPU, 256 MB RAM, 1.3 GB disk space. Not Universal[2].
Recommended: 1 GHz CPU, 512 MB RAM.
Trial: None

As the saying goes, chess takes a moment to learn but a lifetime to master. There is no ultimate strategy to beat all others. White goes first, but has no guaranteed advantage. And so on.

Chess players probably already know about the Mac OS X Chess program in the Applications folder. It's a nice distraction for people who know the game. However, you "learn" from it only by wandering pieces around the board and losing a lot. Frustrating and not efficiently instructive.

Chessmaster 9000, on the other hand, is a complete package of tutorials and playing exercises. It includes teaching formats for players just learning the game. There's a library of past games, including hundreds of the most important games played by masters and grandmasters. It provides just about any game you want to play, either against the computer (in various play levels and styles) or over the Internet.

Installation

After I first installed Chessmaster, it would crash repeatedly on opening. Unfortunately, the version on my disc isn't completely compatible with Mac OS X 10.4, so it needs the latest patch from Feral Interactive. As of writing date, that's version 1.0.2[3]. After installation, starting the game worked fine.

Learning the Game

The word "tutorial" doesn't capture how much education they've packed into Chessmaster's Classroom. There are many hours' worth of instruction that cover all levels of play from first moves to advanced concepts, all narrated and demonstrated.
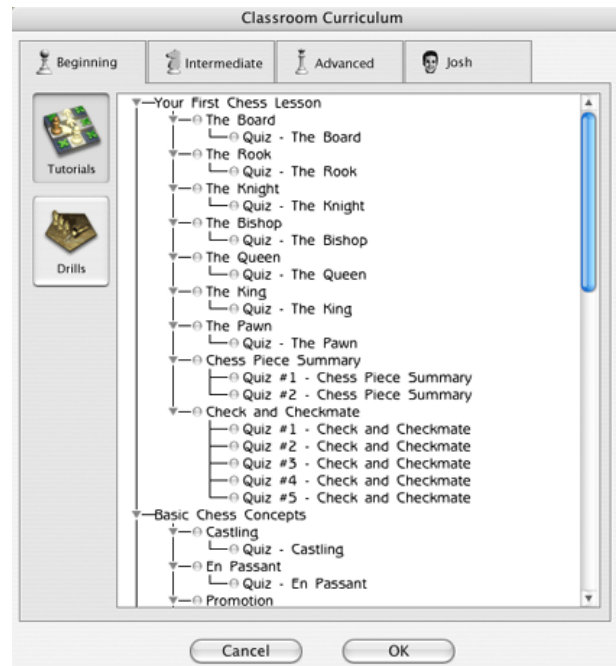
A list of starting lessons and exercises.

Most lessons come in the form of situational play with exercises, but there's also an engrossing series of games narrated by Josh Waitzkin, the former child master and real-life inspiration for the movie "Searching for Bobby Fischer." Waitzkin steps through a whole variety of his past games, covering attack, defense, and the psychology of play.

---

[1]http://www.feralinteractive.com/?game=chessmaster9k&language=english&section=

[2]http://www.apple.com/universal/

[3]http://www.feralinteractive.com/?game=chessmaster9K&section=patches&file=cm9K1.0.2

Instruction on attack strategy.

While the tutorial is exhaustive in scope, simply running through every example won't make you an expert. You still need to play games—many games—in order to understand how to recognize what the tutorials explain.

The History and Strategy of Chess

Chessmaster's Library contains hundreds of classic games dating back to the 17th century and an extensive commentary on opening play. Since openings are an important part of learning the game, you should familiarize yourself with typical positions three and four moves into the game. The Classroom also covers openings in detail.

While learning opening play is more practical, watching the playback of classic games is quite interesting. We didn't have video cameras in the past, but chess' game notation does the job for us. You can pause the game at any point to watch the flow or study a position.

If you're a glutton for chess games, the Database contains a history of thousands of past games from all levels and locations. For example, there are 528 games played by legend Garry Kasparov[4] alone. Search the database by name, rating, event, and so on, then study the game progression at your own speed.

How About a Nice Game of Chess?

The Game Room is the strategy practice area. There are dozens of board and piece designs. Game parameters include opponent style, piece arrangement, and length of game.

---

[4]http://en.wikipedia.org/wiki/Garry_Kasparov

The Game Room is informal. It allows "take backs" and offers strategic advice through Chessmaster's mentor. Head to the Tournament area when you're ready for the real, no-cheating game.

Using the mentor to avoid mistakes.

When you play chess with friends and family, there's no tournament clock ticking away. However, Chessmaster requires a timer when you play against it. Otherwise, being a computer, it could sit there and consider each move forever, looking for the "best" option.

Fortunately, the Game Room doesn't force you to resign if time runs out. In a Tournament game, however, you have to use a timer—and you lose if it runs out. Winning and losing in the tournament (or a rated game) changes your chess rating, which reflects how you've done against other rated players.
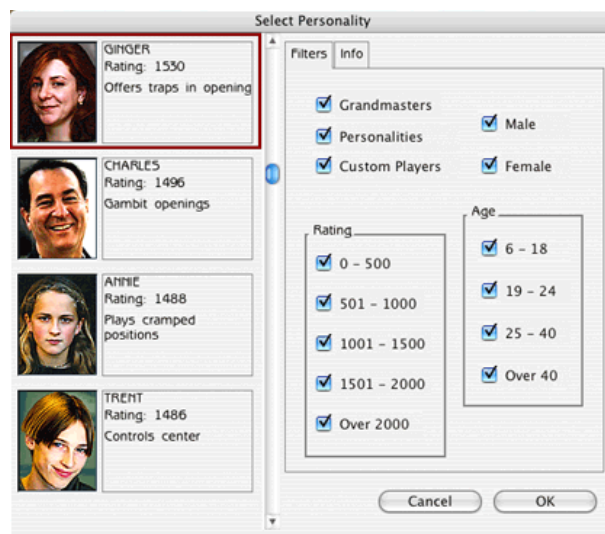

A selection of rated players to challenge.

Chess For Young Players

The Kids' Room is a combination of the Classroom and Game Room. Kids can learn the game, play computer players (including Waitzkin himself at different ages), and print out certificates as they progress.

While the room is geared to young players, I actually spent a lot of time playing here. There's another group of games narrated by Waitzkin and the game controls are close at hand.
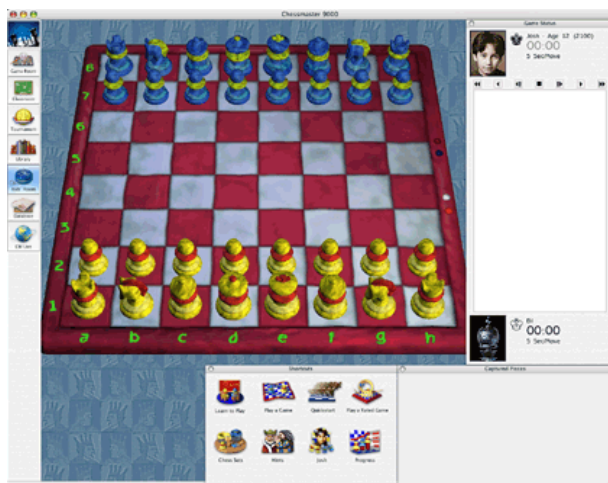
The colorful pieces of the kids' room board.

Playing Against Human Opponents

Chessmaster supports both LAN (local area network) and Internet play. Internet play goes through GameRanger, which is a free download[5].

To find other Chessmaster players, create a (free) GameRanger account and enter the GameRanger lobby. The lobby lists all available games by name. Pick an existing Chessmaster game, or host your own and wait for another player to join.

Summary

The comprehensive tutorial and annotated games are excellent features that pique one's interest, especially for new players. Advanced players will enjoy the vast range of opponent levels and incredible database of past games for study.

Like cards and other classic games, there's no end to Chessmaster, so you can get value from the game for years to come. Actually winning games may come slowly, but the complete package of Chessmaster 9000 is well planned and executed, with no problems other than patching before you install.

---

[5]http://www.GameRanger.com

Clean and Polish Kit

Developer: Newer Technology, Inc.[1]
Price: $18
Requirements: iPod
Trial: None

You take care of your iPod. You don't just throw it into you pocket with your keys, you place it in a protective case. You don't toss your iPod onto your table when syncing it with your computer, you place it in the Dock. No matter how hard you try, though, your iPod gets scratched. Blemishes appear on your iPod's otherwise pristine face.

Or, you're like me—your keys and iPod share the same pocket and you don't actually remember where you last saw your Dock. . .and your iPod gets scratched.

Before

There are several products on the market that claim to restore your iPod to its original brilliance. NewerTech's Clean and Polish Kit is one of the newer entrants into this market. The kit includes four components: a bottle of #1 Heavy Scratch Remover, bottle of a #2 Fine Scratch Remover, a bottle of #3 Plastic Clean & Shine, and a polishing cloth and is designed to be used in three different ways. You can start with either the #1, #2, or #3 solution and then continue through the solutions in sequence for the best results. For example, a heavily damaged iPod

would need the Heavy Scratch Remover, followed by the Fine Scratch Remover, and finished off with the Plastic Clean & Shine solution; whereas a dusty iPod would just require the Plastic Clean & Shine solution.

In theory, working through all three of the Clean and Polish Kit's components should restore your iPod to a like-new condition. Unfortunately, with my well-worn 3G iPod, this wasn't what I observed. During the course of preparing for this review, I went through the whole polishing process three times, starting with the Heavy Scratch Remover. The Plastic Clean & Shine certainly worked as promised, as my iPod looked much cleaner and shinier. I can't say the same for the scratch removal products, though. I think the best way to describe the results would be to say that the scratches were less noticeable at first glance, but most of them remained upon closer examination.

After

I wonder if the survival of these scratches might be due to my attempts at treating my scratches. The instructions indicate that you should being by applying the scratch remover (either the #1 or the #2, depending on which procedure you are following) at a right angle to the scratches. If I had to guess, I'd say this is designed to get as much of the scratch remover into the scratch as possible. However, the mul-

---

[1] http://newertech.com/products/polish_kit.php

tiple scratches on my iPod aren't all moving in the same direction—a right angle to one scratch might be parallel to another scratch. Unless you're starting with a relatively pristine iPod, I don't see how you can follow the Clean and Polish Kit's instructions to treat the entire front face of your iPod.

Based on my experience, I expect that the Clean and Polish Kit would work decently if you treated scratches as they appeared on your iPod. If you've got an iPod that's collected a number of scratches over the years, some of the deeper variety, though, I wouldn't expect to gaze upon a like-new iPod after using the Clean and Polish Kit.

Data Rescue II

Developer: Prosoft Engineering[1]
Price: $99 (Personal, "only drives that you personally own"); $249 (IT, "any drives at one location")
Requirements: Mac OS X 10.2, an un-damaged "working" drive (in addition to the one you're trying to recover files from). Booting from the CD requires a PowerPC-based Mac. Not Universal[2].
Trial: Feature-limited (can only recover one file, <500K)

With a number of backup solutions readily available, it's hard to understand why there would be a need for a data-recovery program. You can burn 700 MB of your most important files to a CD for less than a buck, or use your choice of programs to periodically and automatically back up your data to other hard drives, removable drives, or the network. It's simple and inexpensive insurance against huge losses.

At least, that's what I tell people. And at work I run Retrospect nightly, backing up a dozen or so computers' worth of critical, confidential data onto encrypted VXA-2 tapes, which are cycled through the week and stored off-site. But at home, I'm less professional: somehow I just never got around to backing up my data. So, inevitably, one day it happened: I needed Data Rescue II.

The Situation

To be honest, I'm glad I only had one bad hard drive to test Data Rescue II on. But that does mean that my experience with the program is going to be specific to my situation. Other programs you already have might work fine for your situation (though running them might be risky, if they write to your damaged drive), or your hard drive might be hosed even beyond DR II's recovery capabilities. So let me tell you where I'm coming from.

I was using my PowerBook normally when everything froze. Eventually, I had to hold down the power button to force a shutdown. When my computer started up again, it took a good ten or fifteen minutes to boot. Something was wrong, and as an

---

[1] http://www.prosofteng.com/products/data_rescue_info.php

[2] http://www.apple.com/universal/

IT professional it dawned on me that now (or maybe yesterday) would be a good time to back up my drive. So I started copying files, in order of importance, onto my old Wall Street PowerBook. That worked fine at first, but it started to take increasingly longer to rescue increasingly smaller amounts of data. Finally, progress stopped altogether. Not only was my drive in bad shape, but it was also getting worse as I continued to use it.

The next day, I ran DiskWarrior 3 on the computer; it found piles and piles of errors, but after four hours or so it reported success rebuilding my hard drive. Success! But when I restarted, the computer wouldn't boot, and in FireWire Target Disk Mode the drive was unreadable. When I ran DiskWarrior a second time, it found lots of files but no hierarchy at all. I was able to copy off some files, which, by their names, I thought might be important. But that left me with a lot of reorganizing to do, and there was no telling what files I may have missed.

With nothing left to try, it was time to give up. I'd try zeroing and reformatting the hard drive (it had bad sectors, but I was guessing that was only a symptom of a bigger problem) and if it still didn't work, I'd replace the drive. But before I got started, a review copy of Data Rescue II showed up in my mailbox. With nothing to lose and everything to gain, I figured I'd give it a shot.

The Rescue

By default, Data Rescue II starts in Assistant mode. Each screen clearly explains what's going on and then prompts the user to make a decision. You really don't need to be a geek to use the Assistant (though DR II does have some advanced features that I won't be getting into here).

After I'd selected the drive to scan (my drive was so damaged that it didn't even remember its own name: it was calling itself NotQuiteMaxDisk ever since it started having problems), Data Rescue II prompted me to choose my "working volume," which would be used for temporary storage. That makes sense: if the damaged drive were the "working vol-

ume," there would be a risk of overwriting or damaging files that I wanted to rescue.

Next, I was prompted to select my scan method. I didn't think there was much point to a Quick Scan, but the instructions said to try it first. With my computer booted from the DR II CD-ROM (using an external FireWire hard drive as my "working volume"), it took less than a minute for DR II to confirm my suspicion that I needed a Thorough Scan.
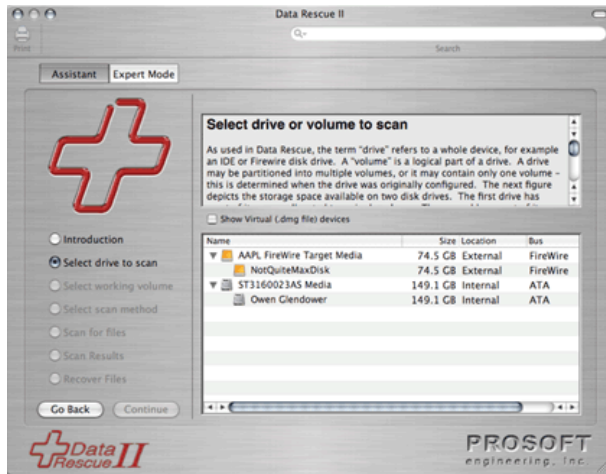
Later on, wanting to test DR II's capabilities as much as possible before my drive gave up the ghost, I booted my damaged computer in FireWire Target Mode. A Quick Scan of the drive then took ten or fifteen minutes to return no results. This is most likely because the drive had continued to deteriorate; my point is, the amount of time it takes DR II to run even a simple scan is going to vary dramatically with the situation. Be patient!
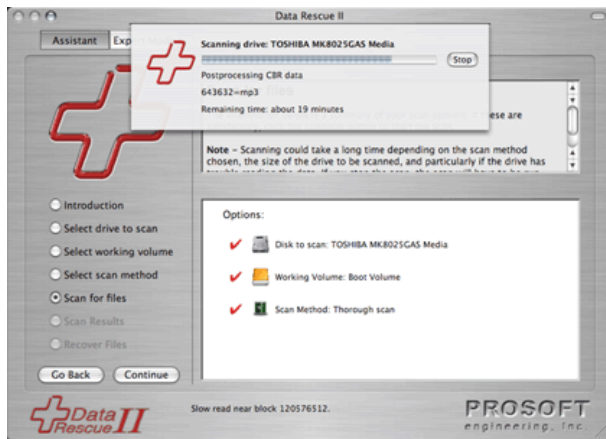

The Quick Scan having failed, it was now time for a Thorough Scan. This actually scans the drive in two different ways, which Prosoft calls Catalog Scan and Content Scan. The former looks at the damaged drive's catalog of files (even if that catalog is itself damaged); files it finds that way can generally be recovered with their filenames and directory hierarchy (and other metadata) intact. The Content Scan, on the other hand, ignores the disk's catalog and scans the drive for certain recognized types of data. Files found this way lack their original names, hierarchy, and other metadata. If you want to recover deleted files, you'll need to rely on the Content Scan, since deleted files won't be in the catalog.

The Thorough Scan took only about an hour to run, but it was directly followed by a step called Processing CBR data: examining the data it had scanned and looking for files to recover. Though the initial estimated completion time was 25 minutes, it ended up taking more than thirteen hours for Data Rescue II to process the scan data.

Emotionally, scanning a dying hard drive in hopes of saving my data before it's too late can be nerve-wracking, especially when the estimated time remaining keeps going up instead of down. Is Data Rescue II really doing anything? Has the drive finally just died and can't get any further? Prosoft gives me some peace of mind by showing, at the bottom of the window, the block number that's being scanned. Of course, I don't really care about the block number, but every time it changes, I know my drive is still alive and DR II is still working. Nice touch.

Once the scan process was completed, I was prompted to select which files I wanted to recover. I was overjoyed to see that, unlike DiskWarrior, Data Rescue II knew my damaged drive's folder hierarchy. I selected folders that contained my data files—pictures I'd taken, documents I'd written, e-mail, my browser's bookmarks file, etc.—and ignored system and program files that I could easily reinstall from software CDs or downloads.

All told, I selected a little more than 27 GB worth of files to recover, including a GB and a half of "Orphans" (files whose parent folder is unknown) and 13 GB of CBR files (files found by the Content Scan).
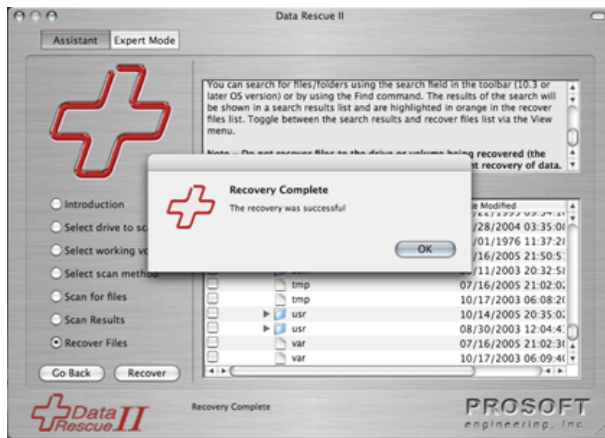
It took more than three days for Data Rescue II to copy all the files I'd selected from my damaged drive onto the external FireWire hard drive I'd attached to my PowerBook. That impressed me: the program just keeps plugging away and getting it done, however little the damaged drive wants to co-operate.

Quirks

The "Recovery Complete" screenshot shows one quirk of Data Rescue II: multiple copies of some files and folders. Fortunately, it shows the modified date of each file (folders can be expanded to show their contents), and you can always double-click on a file to (recover and) open it. I wasn't looking to recover system files, and there weren't duplicates of my data files, so this wasn't really an issue for me. If it had been, I'd have gone with the most recent version of the file.

Recovered folders all contained visible .DS_Store files. That's only a minor annoyance, but an option not to recover those files (or perhaps an option not to recover invisible files generally) would be nice.

A (very) few of the files DR II recovered had zero size. My guess is that these are files that appeared in the catalog but that weren't actually on the drive, or that were on parts of the drive that were too badly damaged to read. (I haven't examined every file that DR II did rescue, but the zero-size files are the only "recovered" files I've found that haven't worked correctly when opened.)

So much for quirks. There was also a single bug: pressing Stop to abort a scan isn't always effective. It brings up a dialog box warning about stopping the scan and offering to Abort Scan, End Scan Early, or Continue Scan. But on several occasions, none of those buttons ended the scan, and DR II continued to report it was scanning the drive. I could press

Stop again, get the same dialog box, etc., but DR II continued to ignore my repeated requests. Once I let it go as long as an hour after I said Stop and finally decided there was no choice but to force-quit the program.

Documentation

Simply put, Data Rescue II has the best product manual I've encountered in a long time. It's intelligently organized, well illustrated, and quite informative. You can download[3] it from Prosoft's Web site if you want to read about some of the program's advanced features (which I'm not covering since I didn't need to use them) or about how data is stored on a hard drive.

If all manuals were this useful, I would very likely be in the habit of reading them. Unfortunately, I didn't open the PDF-only manual for DR II until I'd already been running the program for a while. If I had, I would have learned about an advanced option, which would have been extremely useful in my particular situation: cloning.

Cloning

If your drive is not just bad but getting worse (as mine was), you can use this "Expert" feature to make an exact duplicate of your hard drive and then do recovery from the clone. The entire (failing) drive gets read only once instead of multiple times (to scan and then to recover files).

There are really two options for a target disk when you clone, and these options aren't discussed in the manual (great, but not perfect). You can either completely overwrite the target drive with data from the source drive (destroying all data already on the target drive), or you can (manually: I used Disk Utility) create a sufficiently large disk image and use that image as the target drive (thereby not destroying other data on your second hard drive).

Unless there's some sort of performance hit with disk images, that method seems the obvious choice. It would be nice if Data Rescue II could offer to create the disk image for you instead of making you step outside the program to create one yourself.

I'd already successfully recovered my data, but I wanted to check out the clone feature anyway. When I started the operation, I was told it would take 21.6 hours. Half an hour later, that time had increased to 2,226.2 hours, or a bit more than three months.

---

[3]http://www.prosofteng.com/support/data_rescue_2.php

The time neither increased nor decreased after that, and eventually I hit Stop. It took a minute, but the operation did stop.

Attempts to mount the cloned disk image in the Finder failed, but Data Rescue II was able to scan it. As with the original drive, Quick Scan failed, and a Thorough Scan was required. It took about an hour to do a Thorough Scan of the 80 GB cloned disk; it found, as expected, very few files (extremely little progress had been made when I gave up on the cloning process).

So you see why cloning is such a brilliant idea: say your drive is on the brink of unrecoverable hardware failure. If you do a Thorough Scan of the drive, it might die in the middle of the scan, and then you recover zero files. But if the drive dies in the middle of a clone, you can still do a Thorough Scan on however much of the clone as Data Rescue II was able to complete, and then rescue some of your data. (You can't specify anything like a priority for cloning, e.g., "clone all my Word documents first," so it's really chance whether a partial clone will get any of the files you care about. Still, better than nothing.)

Conclusion

Let's face it: no matter how great my experience was with Data Rescue II, you're not going to run out and buy a copy. This is the kind of program you don't care about until you're desperate. But if you do have a hard drive failure and haven't got a recent backup, download Data Rescue II. You can do a Thorough Scan of your drive without buying the program: see what DR II can recover for you, let it rescue a sample file, and once it's proven itself for your situation, buy it and save the rest of your files. Then, having learned the hard way, make sure you back them up.

Path Finder 4.0.2

Developer: Cocoatech[1]
Price: $35; $18 (upgrade)
Requirements: Mac OS X 10.4. Not Universal[2].
Trial: Fully-featured (21 days)

I guess if you're born and grow up high in the mountains, you don't know the air's thin up there. Or if a city is your home, perhaps you're not aware of the pollution. Or if the country's what you know and love, you probably aren't aware of the farm smells and agricultural chemicals. We don't notice what's always there.

Until you go somewhere else, that is, and say: "How can you breathe this air? It's so heavy / polluted / smelly!" You don't think about the air around you, because it's just the way life is.

We Mac users have the same experience. Have you ever really thought about the Finder? I didn't—it was just there. It was only when I started reading about Path Finder, and people whose opinions I respected seemed to mention it quite often—that I thought there could be more to my Mac's fundamental operations than the Finder offered. So I tried it out some 18 months ago. I was skeptical at first, but after a day or two I had been won over. Now I wonder how anyone can use their Mac without it.

The recently released version 4 was eagerly and long-awaited, but the rewards are enormous.

Preferences By the Score

Path Finder is intended to replace the Finder. It allows you to find and manage your files—all of them. It does just what the Finder does, and then adds hundreds of features to make your life easier.

The heart of Path Finder is the browser. It combines the good old fashioned Finder window with the modern talents of a fine Web browser, including, in version 4, tabs.

Where the Finder gives you a scant dozen or so options in the Preferences, Path Finder can almost overwhelm the new user with choices. But it's the choices that give you the power. If all you ever do is

a bit of e-mail and Web browsing then Apple's Finder will suit you well and you won't see the point in Path Finder.

If you've ever wanted to move files, preview documents, expand downloaded compressed files, get info, view invisible files, dash off a quick Terminal command, work out exactly where your document is stored, and open it with the application of your choice, then the almost infinitely customizable Path Finder is a fantastic choice for you.
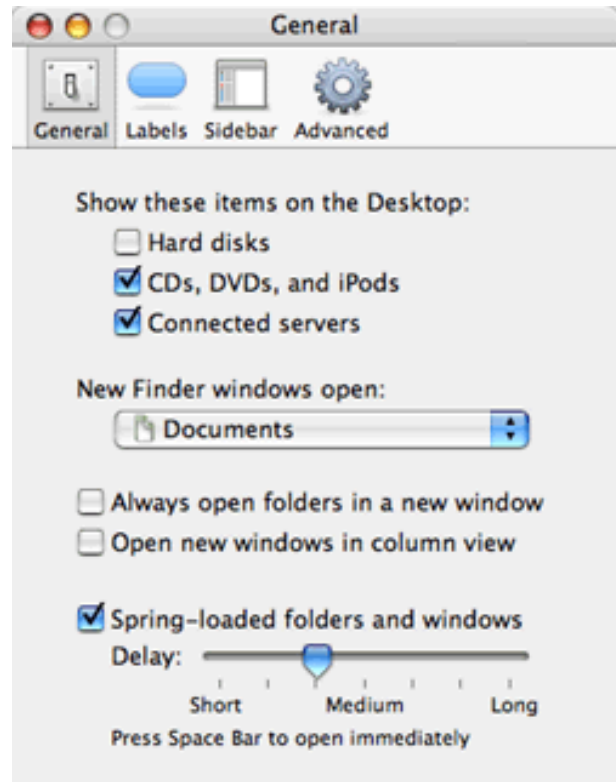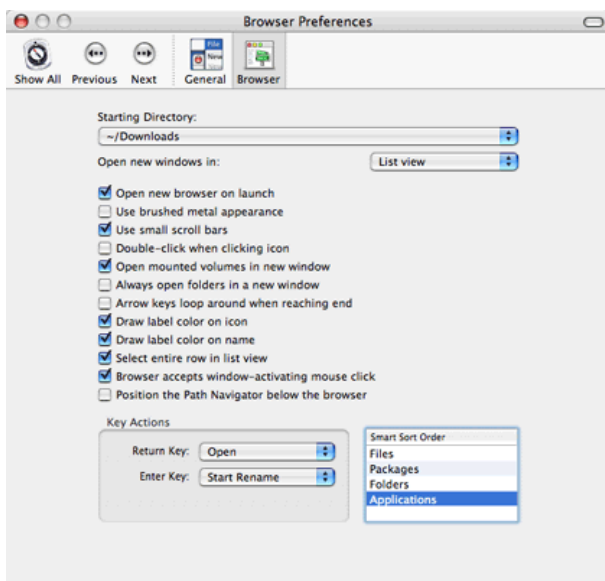

The Finder's paltry preferences.

---

[1]http://www.cocoatech.com/pf4/
[2]http://www.apple.com/universal/
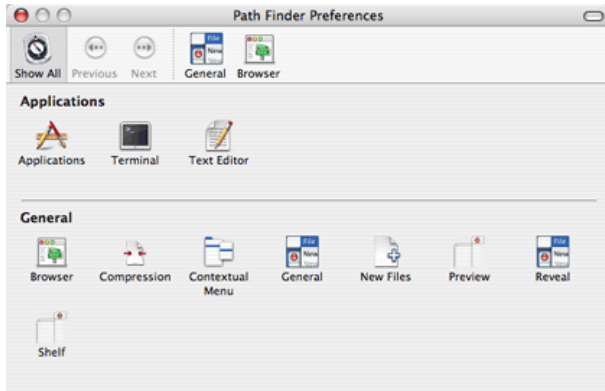
Path Finder offers preferences for everything.

Path Finder's Browser preferences.

Path Finder Gives You Wings

The basic Path Finder browser shows a list of files all right, but in three corners of the window are tiny buttons that add extra functions. In Path Finder 4 you can customize these. I like to set my browser to show the Processes drawer, a list of all running applications; the Selection Path drawer, a list of all containing folders for any selected item; the Folder History—one click takes me back to any folder I visited recently; the Info pane; and the scrollable Preview pane.

At the left I like to keep the Drop Stack, the Volumes list, and the Shelf—the Shelf duplicates the functions of the Finder's Sidebar. Now if I click on

a CSS file, for example, Path Finder instantly shows me a Preview in the Preview pane, together with detailed file information.
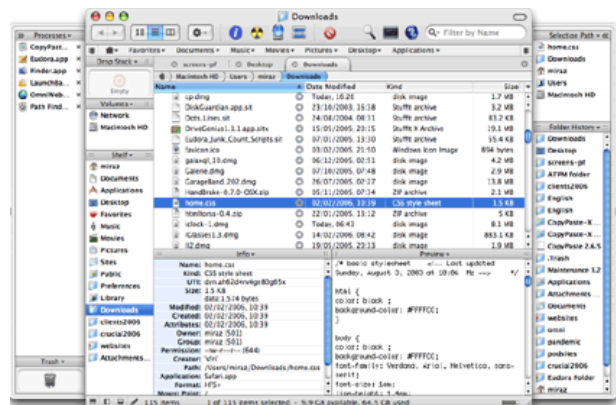

Capture all the information in one glance.

The instant preview has become one of my favorite features, especially for pictures, where the size is also shown. As a Web designer this is invaluable to me. If I need a larger preview I can enlarge the preview pane, but I prefer to open the separate Path Finder Preview window that I can enlarge to fill my screen if I wish. The Info portion of the window gives me endless details, even down to the serial number of my camera.

Drop It

Possibly the single most important feature for me is the Drop Stack. It's a temporary, smart holding bay for folders and files. Sometimes I need to gather odds and ends from all over my computer into one or more folders. With the Finder I could open windows for the destination folders and roam around in another window locating files then dropping them onto the other windows.
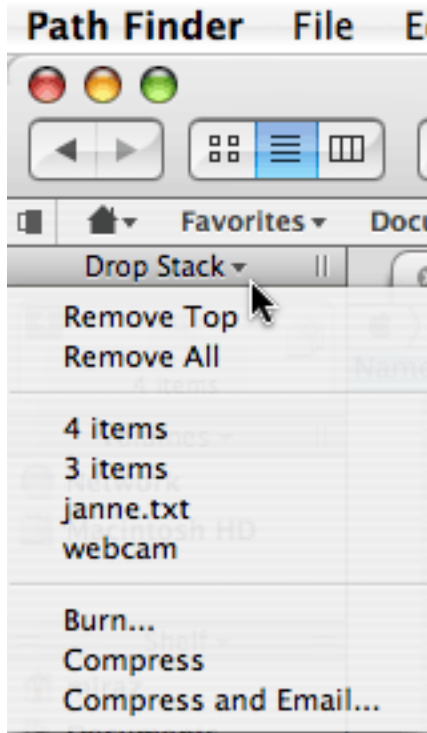
The Drop Stack holds files temporarily.

In Path Finder I simply drag files and folders to the Drop Stack. It keeps a tally as I go, and at any time I can see a list of all the dropped files. When I reach a destination folder I can drag out any files I choose. Until I do that, the file hasn't actually moved anywhere. Other possibilities include removing items from the Stack, burning them to a CD/DVD, and compressing and e-mailing them. Unfortunately the e-mailing option uses Apple Mail, even though Eudora is set as my default mailer.

There's another handy feature of Path Finder— its built-in ability to compress and decompress files. It uses the StuffIt engine, so you don't need to separately install StuffIt Deluxe. This feature alone will repay your investment if you download or need to send compressed files.

One thing that constantly catches me out is that the Drop Stack "belongs" to the browser window. If I open another window it has an empty Stack, even if the Stack in the first window was loaded. That's probably logical, but I expect the Drop Stack to be independent of windows.

Tabbed Browsing
One of the most valuable features of any modern Web browser is tabbed browsing—you have one single win-

dow but view different Web pages in different tabs. Web browsers such as Safari let you Command-click a link to open it in a new tab, drag a link direct to the tab bar to open it in a tab, and so on. As someone who spends a lot of time around Web pages, these actions are second nature to me.

So although the new tabbed interface in Path Finder is an excellent enhancement, there are disappointments in its implementation. I can Control-click to open a folder into a new tab, but I can't just drag a folder to the tab bar, nor can I use a modifier such as Command-click, which in fact opens a folder into a new window, even though I'd prefer a new tab. I imagine, since tabs are a new feature, that these enhancements will come later. It's such a pleasure to have tabs that these criticisms are minor.

Another "pause for thought" is that you create a new browser window from the File menu, but create a new Tab from the View menu. I'd expect both to be on the same menu.

Developer Response
The day after Path Finder 4 was available I blogged about a couple of things I'd noticed: a JavaScript in a Web page caused the browser to resize when I clicked on it, and the default HTML file you can create from the File menu wasn't as I thought it should be. One of the developers, Neil, left a comment and the next minor update included a fix for the HTML file.

The JavaScript bug (I thought it was a feature actually) hadn't been spotted in beta testing, and Neil was going to check it out.

Although impatient fans had moaned at length because of delays in getting version 4 out, I find it remarkable that one of the developers should leave a comment on my blog within hours of the product's release and fix a minor complaint for the next update. The moaning of the fans and the delays in production tell me that this software is very much loved and that the developers have high standards. I didn't whine aloud about the delays, but I was definitely checking twice a day there for a while in case the new version had appeared.

More, More, More
I could write about Path Finder's features for weeks. The couple of favorites I've mentioned are just that: a couple of favorites. There are hundreds, perhaps thousands, of features—after 18 months I'm still discovering new ways Path Finder can help me work.

There's no such thing as perfect software. Yes, Path Finder has crashed once or twice, yes tabs are great but could be even better, but in this review I've had to rack my brains to pick out just my top one or two features to highlight and to dredge up some criticisms. Call me a fan.

Path Finder is a great investment for anyone who wants to have a couple of clues about the files they work with. It's not for everyone: if you're stumped by how to Trash a document or can't remember how to save your letter into a specific folder, then Apple's Finder will suit you nicely.

If you know how to work your Mac and want to make it work harder for you, then you should be downloading Path Finder's 21-day free demo even as you read this.

---

[3] http://mactips.info

X-Slim EL

Developer: I-Rocks[1]
Price: $60 (Mac version; Windows version can be had for $30 via Froogle)
Requirements: Mac with USB
Trial: None

ATPM RATINGS
OKAY

Say you're still using a desktop Mac, and you're jealous of PowerBook users' ability to light up their keyboards. Apple doesn't offer any solutions, but numerous third-party manufacturers have been building backlit keyboards, largely with electroluminescent lighting (EL; think Timex's Indiglo watches) for some time now.

Most of the EL keyboards on the market are about as stylish and attractive as your typical $500 PC, which is to say they're pretty ugly. I-Rocks has put together the X-Slim EL, an EL keyboard that at least doesn't look out of place next to any of Apple's consumer gear. The stark-white-and-chrome motif works well with iBooks or iMacs, but marginally less so with the aluminum theme of the pro gear.

Of course, the primary purpose of backlighting a keyboard is for superior usability in low-light conditions, and in this regard, the X-Slim EL performs admirably. A cool blue color serves as a fine backdrop to the black lettering, although white would be better (and would match the power, Caps Lock, and Num Lock indicator LEDs used in the upper-right corner). Kudos, too, to I-Rocks for putting true cloverleafs on the Command keys, a small detail missing on many dual-platform keyboards.

Unfortunately, that's where the good news ends. Starting a fairly long laundry list of complaints is the way the keyboard appears to be a real-time X-ray of its innards when the backlight is on. Apple put a lot of effort into studying the various ways to backlight

a keyboard, and I think the end result is, as usual, a superior user experience. PowerBook keyboards have opaque keys with translucent labels, so that the only thing lighting up is the label itself, notwithstanding some minor light leakage between the keys. Every third-party backlit keyboard I've seen has used translucent keys with opaque labels.

This is an inferior lighting design for two reasons. First, the contrast of black labels on a less-than-white background color is poor; in the case of a red background (and don't laugh too hard, because I've seen it) it's virtually nil. This makes the keys much harder to read than Apple's nearly white-on-black setup. Second, there is a great deal of excess lighting coming out of the keyboard, so that if you are working in a dark environment, the degree to which glancing at the keyboard hurts your low-light vision adaptation is much greater.

The X-Slim EL's key layout appears to be unique to I-Rocks, and the non-standard layout is enough to drive you nuts if you're used to a full-size Apple keyboard.

---

[1]http://www.i-rocksusa.com/products/ir6810m.html
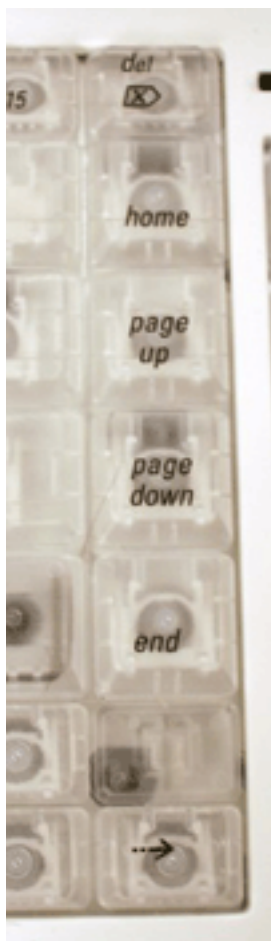
Particularly infuriating is the arrangement of Page Up/Page Down/Home/End vertically along the right-hand side of the keyboard, which is almost unusable. Fortunately, I-Rocks was smart enough to use an inverted-T layout for the arrow keys. Those of you who've been around Macs a long time will recall the in-line arrow key layout on early non-extended Apple keyboards and how awful it was. The F-keys are smaller than normal size, evoking rather unpleasant memories of the keyboard that shipped with the original iMac. There are 15 of them, though, an improvement over the 12 F-keys on most smaller or "slim" keyboards.

There is no eject key. Eject is instead mapped to F12, which any Tiger user can tell you is the default for Dashboard. So far, no alternative means of activation has presented itself, including using combinations of F12 with any of the *three* Control keys on the keyboard. There is also no way of powering on a desktop Mac with the X-Slim EL, a common complaint with third-party keyboards intended for use on both Macs and PCs.

Also making its appearance on the list of puzzling omissions is a USB hub. Mac keyboards have traditionally had a pass-through for other input devices, and most third-party keyboards intended for the Mac market have been no exception. The X-Slim EL isn't most keyboards, and occupies a precious USB port without offering any extra ports itself. Since most people who use an external keyboard use an external mouse as well, unless you're already a Bluetooth user, you're likely going to be buying a USB hub.

The "feel" of a keyboard is very much a matter of personal preference, but as far as keyboards go, this one is near the bottom of my lifetime list. The old Apple Extended Keyboard is often cited as the pinnacle of Macintosh keyboard design, and while I enjoy it, my personal favorite is the black Apple Pro Keyboard that shipped with the G4 towers. The X-Slim EL has scissor-action keys similar to those on a PowerBook, but the key action feels even stiffer and more uncomfortable than the Wall Street's did. While I realize that any keyboard takes some serious usage to "break in," none of the three PowerBooks I've owned, nor any of the Apple-branded external keyboards I've owned, were this stiff initially. On the plus side, the keyboard itself is also stiff, which is a good thing; early iBook keyboards were roundly condemned for being too flexy.

As long as the keyboard is plugged in, a white "Power" LED illuminates above the numeric keypad. I've ranted about the unnecessary light pollution of my computing environment by status LEDs before; there's a nice chrome button to turn the backlighting on and off, but there's no way to turn off the bright white LED, nor is there any way to control the in-

tensity of the backlight. Furthermore, the inverter makes a constant high-pitched whine, which I could hear even over the rain on the roof. You get used to it after a while, but it's definitely there, and I don't like it. This problem is not necessarily specific to the X-Slim EL; most EL inverters whine at least a little bit.

The bottom line, then, is whether the backlighting is worth the major tradeoffs. There are far better keyboards out there for $60—anything from Apple comes to mind, or even a $40 Griffin iMate plus an old-school ADB Apple Extended Keyboard II—but they aren't backlit. If you really need the illumination in your workspace, this might be what you're looking for, but if you have any doubts, don't bother. Someone will eventually come along with a product that works far better for less money. That's how the computer industry works, after all.

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[1] if you're interested.

How Can I Subscribe to *ATPM*?

Visit the subscriptions page[2].

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.

- The **Offline Webzine** is an HTML version of ATPM that is formatted for viewing offline and made available in a Mac OS X disk image. 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 PDF 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 Apple's Preview or Adobe 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 PDF format. It's a one-column layout with larger text that's optimized for reading on-screen.

What Are Some Tips for Viewing PDFs?

- For Mac OS X 10.3 and 10.4 users, we recommend Apple's Preview. You can download[3] Adobe 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.

- With Adobe Reader, 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 drawer in Preview or the bookmarks pane at the left of Adobe Reader's main viewing window.

- For best results on small screens, be sure to hide the bookmarks; 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.

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

---

[1] mailto:editor@atpm.com

[2] http://www.atpm.com/subscribe

[3] http://www.adobe.com/products/acrobat/readstep2.html

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 (although we cannot promise to answer every inquiry). 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[4] 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[5] 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.

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.

---

[4] http://www.atpm.com/reviews
[5] http://www.atpm.com/Back/