ATPM

A wee Macintosh! How quaint! And I dinna' think I could model transparent aluminum on any other machine in 'tis century.

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Welcome

by Robert Paul Leitao, rleitao@atpm.com

Welcome to the August edition of *About This Particular Macintosh!* The Macintosh world may be running a month ahead of time because July was an august month indeed! In many locals in the northern hemisphere, August is the hottest month of the year. We'll see if things cool down following July's heated Apple news and new product announcements. To provide some relief from the heat, we'll breeze through all the cool stuff in this welcome to our latest issue.

Millions and Millions of Macs

In the three-month period ending in June, Apple Computer shipped well over one million Macs—one million, one hundred eighty-two thousand Macs to be almost exact.

Millions and Millions of iPods

In the three-month period ending in June, Apple Computer shipped well over six million iPods—six million, one hundred fifty-five thousand iPods to be almost exact.

Billions and Billions of Dollars

Sales of more than one million Macs and more than six million iPods helped Apple generate more than three and one-half billion dollars in revenue in the three-month period—three billion, five hundred twenty million dollars to be almost exact.

Billions in the Bank, Millions More in Earnings

Apple ended the three-month period with over seven and one-half billion dollars in cash and short-term investments—seven billion, five hundred twenty-six million to be almost exact. The increases in interest rates over the past several months worked to the company's favor by increasing the yield on the company's cash. Interest earnings more than tripled to $46 million from $13 million one year before.

Half a Billion Songs Served

During July, the iTunes Music Store passed an important sales milestone. The half-billionth song sold moved across the Internet as music fans watched a digital ticker on the Apple home page count up to that monumental moment in Apple history. At the current rate of song sales, the iTunes Music Store might pass one billion songs sold sometime just before or soon after New Year's Day to be almost exact.

Sharing the Wealth

Apple's own wealth not withstanding, consumers have been happy to share their own wealth buying music through the iTunes Music Store while buying iPods and Macintosh computers in record numbers. Apple's share of the US PC industry grew to a reported 4.5% in the 2nd calendar quarter, placing the company in the #4 spot in domestic PC sales. At the current rate of unit sales growth, Apple might overtake Gateway in the #3 spot within the next eighteen months or by Christmas 2006 to be almost exact.

Millions of Students, Thousand of iBooks

In late July, Apple announced upgrades to its iBook line of laptop computers. The upgrades were announced in time for back-to-school purchases. The new iBooks sport up to 1.42 GHz G4 chips and have built-in AirPort and Bluetooth wireless connectivity. The new iBooks are expected to be a big hit with students who have discovered Apple's legacy of easy-to-use products through the popularity of the iPod. Thousands of iBooks will be purchased by first-time Mac users as millions of students head back-to-school somewhere between late-August and early September to be almost exact.

Millions of Readers, Thousands of Formats

Actually, that's not almost exact. Our monthly readership can be counted in the tens of thousands of loyal readers, and each issue of ATPM comes in several different formats from PDF to the Web. What is exact is our attention to the Macintosh and the world of personal computing. Each issue of *About This Particular Macintosh* offers unique insights about the personal computing experience as well as spirited reviews of many helpful products. Our August issue contains august information on every digital page.

This latest edition of ATPM includes:

Bloggable: Get a Clue

Rob Enderle. Robert X. Cringely. Paul Thurrott. *The Wall Street Journal. C/Net.* In this world of sin and sorrow, there is only one constant: the amazing ability of tech pundits to misunderstand Apple and Macs. In this month's *Bloggable*, Wes Meltzer takes another trip around the endless merry-go-round of stupid Apple predictions and analyses. Plus a large volume of other good reading.

Pod People

In this month's *Pod People*, Eric Blair looks at how he went from iPod doubter to devout believer.

Outliners: Outlining and Styles, Part 2

This month's *ATPO* surveys top Mac outliners to see how well they support styles.

FileMaking: Fields and Calculations

Charles Ross continues his tour of FileMaker by delving into the various field types available.

How To: Is Your Memory Failing?

"The machine was everything I had hoped it would be. The only danger was that while sitting slack-jawed in front of this new speed demon I might drool on the keyboard and short something out. Then the trouble started…"

Interview: John Hart, ModYourMac.com

Modding is all the rage in the computer community these days, and the Mac market is no stranger to this phenomenon. John Hart, winner of numerous awards for his work with ModYourMac[1] sat down with us this month to talk about his latest work, his inspirations and some tips for those folks considering modification of their own Macs.

Desktop Pictures: From ATPM Readers

This month features images from ATPM readers: Arizona, Frog, Red Rock Country, Gateway Arch, and Sunset.

Cortland

Cortland wraps up dinner with his parents and friends, Wieser Graphics rises from the ashes, and Matt pays homage to influential Web comics.

Frisky Freeware: App Stop

Frisky the Freeware Guinea Pig checks out App Stop.

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[1] http://www.modyourmac.com

Review: Backpack

As the Web expands, so expands the amount of data we have to track for ourselves. Projects, parties, events, these are all things that require lists and structures and data. For those who can't keep track of their own wallet without some drama, Backpack is your valet, holding bits and pieces of information you need, a checklist to get through all your tasks, and reminders when you forget.

Review: Boswell 4.0

Sometimes, as a writer, the perfect sentence is on the tip of your tongue. And sometimes, it's lost in a file stuck somewhere that you can't find. Better still, a file whose contents you only vaguely remember. Sound familiar? Boswell is the original Spotlight for your writing, a database for everything you tap out on your keyboard, and Wes Meltzer finds that, if you can get over the challenge of using it, you can make sure your writing is always exactly where you expect it to be.

Review: Brenthaven Pro 12/15

When a computer bag focuses primarily on isolation and protection; giving little if any thought to style and function, that computer bag can only be a Brenthaven. In this particular case, it's the Brenthaven Pro 12/15, which according to their marketing was designed with Apple in mind.

Review: Detour

The Timbuk2 Detour is a vertical-oriented bag designed to be carried either as a briefcase, a shoulder bag, a messenger bag, or a backpack. Could it win over a backpack guy?

Review: MaxSleeve

The perfect traveling companion for your hard-shell backpack or laptop bag.

Review: Vyper

The booq Vyper carrying case for Apple laptops is stylish and sturdy, according to our reviewer.

E-Mail

It's Just Business[1]

The switch to Intel processors really *is* just a good business decision which, as a long-time Mac guy, is the best news I've heard since sliced bread!

Marry the best operating system to the fastest, coolest running chips on the market, and I'm *there!*

—*Grover Watson*

Audio Conversions[2]

I read all three of your excellent articles about converting analog to digital audio for Mac, and I was very grateful to find information for the Mac OS X.

I wondered if you have any recommendations or information on the ADVC110[3] Digital Video Audio Converter, which is powered by a FireWire connector and works with Windows and Mac OS.

I have purchased (but not yet opened) the ADVC110 for the reduced price of $269 (regular price $319). I don't want to waste my money if you think this is an overpriced way to convert analog audio (cassette music and LPs) and video tapes to CDs and DVDs. I hope you have the time to send me some advice.

—*Judith Easterly*

If you already own this unit, I think it makes sense to go ahead and use it. It will certainly do what you need.

For LPs, you may find it less straightforward to use this device than a Griffin iMic with Final Vinyl. The reason being that Final Vinyl offers proper equalization for LPs (which are cut using the RIAA EQ curve that affects the low and high frequencies) and also boosts the input sensitivity since most record players output at a tiny fraction of the level of your CD player (typically 2 mVolts instead of 2 Volts for a CD player or cassette deck).

But this device will obviously do things that the iMic won't, namely converting your analog video footage to digital so you can make DVDs, etc. And for cassettes it will be very straightforward to archive to CD.

If you find that LPs are not user friendly with this device, take a look at the iMic with Final Vinyl from Griffin. It's not that expensive, and it is a very easy way to go about converting

LPs to CD. But depending on how many you plan to convert, you may be just fine with the ADVC. —*Evan Trent*

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I have a Quad ElectroAcoustics setup, which I bought in 1984. This offers me a 5-pin Din plug output, and I have purchased a DiN-to-minijack cable, which now gives me a stereo signal. My Mac is a Pismo Power-Book so the sound card route isn't an option. You mention Griffin's iMic, and I just wanted to clarify the manner of connection. Do I simply put my minijack into the iMic and hook that up to the USB port?

Finally, I'm not an audiophile, but I want to do a decent job on transferring my vinyl. Can you suggest a reasonably idiot-proof clean up application or plug-in to remove noises? You suggest Amadeus 2. Would that still be your suggestion?

—*Niall Connolly*

Wow cool—a Quad setup huh? I didn't even know there was a DIN-to-minijack cable available on the market. . .where did you find it? I'm curious. I figured that would be a custom job. Either that or a DIN-to-RCA and then RCA-to-minijack kind of thing. I'd be eager to learn your source for the cable because many of my customers (I run a high-end audio shop[4] here in the states) have Quad or Naim gear and would find such a cable useful for the exact purposes you're planning.

As to your question. . .yes the minijack should go right into the iMic and then into the USB jack. And as to software, I would recommend Amadeus. It has several useful filters. If your Quad rig does not have a phono preamp built in, then you may need to use Final Vinyl to boost the signal, and then export to Amadeus. But if you have a phono stage on board, you can go right into Amadeus and bypass Final Vinyl entirely. —*Evan Trent*

FileMaking[5]

This is really a nice introduction to FileMaker! I would like to see more. Going through the FileMaker examples, I see things that are not explained very

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[1] http://www.atpm.com/11.07/candy.shtml

[2] http://www.atpm.com/9.03/under-the-hood.shtml

[3] http://www.canopus.us/US/products/ADVC110/pm_advc110.asp

[4] http://www.symphonysound.com

[5] http://www.atpm.com/11.07/filemaking.shtml

well. One area that is not clear to me is global variables versus sums and subtotals, e.g. how can you make totals across a selection of records and make it available on the screens, where it automatically updates? This is useful, for example in an inventory for seeing replacement value. Some of these types of advanced subjects would be very helpful to many users.

Thanks for a very useful article!
—*Gloria Wilson*

Soundsticks II Review[6]

Very interesting review of the Soundsticks II. I was at J&R in New York today comparing them to the Altec Lansing MX5021. I liked the Soundsticks a lot, but was shocked at what I thought was the superior sound with the Altec Lansing for only $20 more. I'm not an audiophile, so I'm wondering if my ear is any good. Have you heard the MX5021?

For yet another $80 I could get the Altec Lansing FX6021[7] that you reviewed, but I don't think that is as big an improvement as in the MX5021 over the Soundsticks. Am I off base?
—*Bill Brunelle*

> I haven't heard the MX5021s—but my advice is to trust your own ears. Don't worry about specs or price (within reason). Just because a speaker is a more expensive doesn't mean it's better, but it doesn't mean it's worse, either. It doesn't really mean much of anything in today's world. And specifications have become almost entirely meaningless these days. Just about the only thing we can depend on to guide us through the purchasing process are the two holes on each side of our head. So if you found a pair of speakers you like better, go with them! —*Evan Trent*

Hit Me Again[8]

Super article, very smart!

Except for the anti-Italian knock on Ferrari engines of course. (I own one, not the car, just the engine. For showy display, ya know.)
—*Ed Williams*

> Thanks, and also I didn't quite say Ferrari engines aren't good or weren't part of the appeal

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[6]http://www.atpm.com/10.04/soundsticks.shtml
[7]http://www.atpm.com/11.07/altec-lansing-fx6021.shtml
[8]http://www.atpm.com/11.07/segments-hit.shtml

of the whole car. But it's not the only consideration.

Definitely I would love a Ferrari and admit I can't afford one.

Now, I remember an analogy about the evolution of computers compared to that of cars. . .if only Ferrari did what Apple achieved with the Mac mini. . .hmmm. . . —*Angus Wong*

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Blimey, you do come across as a bit of a zealot, don't you? I tried to read the whole article but I had to stop. I've owned Macs since January 2001 and have been interested enough to acquire an old PowerBook Duo 230 (with dock and external CD-ROM) and have fun with a machine of such vintage, too.

I've been reading ATPM since 2001 and go through all the back issues, but do you really think a normal/common/garden PC is that much of a handicap? It isn't. PCs are reasonably friendly. I don't find them a problem at all. I'd say they're just as easy to use. If Windows didn't amass the market share that it did, Steve and Co. would be screwing the public just as tightly, if not more so.

If I'd have chosen a PC on that day four years ago, I'm sure I would be just as happy. What I like about the Mac has nothing to do with the operating system or the machine in general. What I like about the Mac is the support you get from the installed user base who offer free and insightful information (and fun comments) on Apple discussion boards, Web sites, and magazines like this. If not for the friendly people, I would have no attachment whatsoever.

The question is, are these friendly people those who have grown up with the Mac, from the 80s onward? If someone were to come to the Mac right now, how differently would they perceive it? Is there really such a big gap between Mac and PC today? I don't think so, which is why they're both easy to use. The usability gap must have been far wider in the past. Not now.
—*Matt*

> Thanks for your comments. Am I a zealot? I suppose so. I do claim to be one of the "Mac fanatics" and consider that patting myself on the back.
>
> Windows is much easier to use now (especially when equipped with 3rd party add-ons such as Google's Desktop Search and the Firefox browser). But, at the same time, the Mac OS has come a long way as well.

I won't debate with you on the usability issue. Personally, I still think my Mac is way easier to use than my Windows machine, but there are many other factors to consider when deciding on a computing platform, and security is one of them.

I also know that I am able to work better and more efficiently in OS X than in Windows XP, but this is my own experience. If you are happy with your PC, as I wrote in the article, good for you.

The significance of Windows' market share, and how it was acquired, is also a controversial issue, and effective business "strategies" do not necessarily mean good technology has correspondingly been promoted. —*Angus Wong*

No problem.

I would like to point out though, that I don't own a PC. I did acquire my brother's PC back in late 80s (Amstrad PC1512), but I didn't get on with it very well. It used the GEM operating system, which I understand was the OS that shipped with the Atari ST.

I went from this machine to a Commodore Amiga. In the mid-90s, my friend had a P75 and a P90. Trying to get these things to run Doom without a hitch was a nightmare, but we managed it. Sometimes the sound card wouldn't register, or the machines wouldn't talk to each other, etc. As cool as these machines were, I felt they were more trouble than they were worth. I stuck with my Amiga until 2001 and the guy in the shop just happened to be a Mac fan and sold us on an iMac DV+.

So, I stick with Macs through habit now. The difference between PCs of today and those from '96 is massive. Now, they are much more Mac-like.

Nevertheless, I do agree with you on the safety of the PC, i.e. personal details getting hijacked, etc. Sites like ATPM and Low End Mac (among others) mean I am always scouring eBay for cool old Macs. I came so close last Christmas to acquiring two Mac SEs and a Classic. Just missed out.

One day. . .
—*Matt*

Instead of hunting down an old Mac, I suggest you hunt down a recent version of either the iBook G4 or the Mac mini with Tiger pre-installed. Both were upgraded recently and are a super value for money, especially with built-in AirPort Extreme and Bluetooth. You'll need to up the RAM a bit, though.

For what it's worth, around the time you had an Amiga, I had an Atari. Back then, Apple

was the enemy because both the Atari and the Amiga had superior technology. I think Amiga even gave Electronic Arts its first major graphics platform to justify the company's breakthrough business model and marketing strategy.
—*Angus Wong*

Podcasting[9]

It is already happening.

Sirius radio already has a podcast channel called Podshow produced by BoKu Communications (Adam Curry's company).

BoKu has already recruited and is paying "the cream of the crop" such as P.W. Fenton from Digital Flotsam podcast to produce high quality content.

It is the other way around: commercial podcasting business is mainly about content quality. No one is going to listen to a Coca-Cola podcast—however high the production values may be—if the content isn't attractive. (For example, I only listened once to the Virgin Radio podcast because they had taken all the music out and served the leftovers, a.k.a. DJ Banter, as a podcast). Of course, money buys you lots of marketing power and bandwidth, but word-of-mouth (or rankings sites such as Podcast Alley) will make the larger and long-term impact.

I see iTunes and iTunes podcasting as the Amazon of music. The "Long Tail" theory applies fully here as well.
—*Swissfondue*

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Thanks, David, that was interesting—I agree with most of what you are offering, but I also think that commercial interest not withstanding, the Internet (and by its mechanism podcasting et.al.) does and will serve as the universal bazaar of ideas and access—the relevance and/or veracity of any given instance will always be suspect, but the volume and access afforded will be continuously transformative of society and ideas. To the fittest will go the laurels, but to any can go the rewards.
—*Wendy York*

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Right on, David. Good commentary. I've never gotten the hype behind podcasting, either. Gee, you download an MP3, and it's got spoken-word content

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[9]http://www.atpm.com/11.07/segments-podcast.shtml

in it. Just like you said, you can play it through any-thing, what's it got to do with an iPod necessarily? Nothing.

That said, I think it's funny that you—correctly, in my estimation—dismember the term podcasting, yet you mention blogs—I feel the same way about blogs as you do about podcasting. I've had a personal Web page up since 1993—if only I had put in a little personal diary (and kept it up!—that's the hard part) I could have claimed to have kick-started the blog revolution well before its time, blah blah (and named myself Adam Curry).

To me, a blog is a personal Web page with di-ary. "Blog" is a cool/hip name for not that new and exciting a concept.

—*Riot Nrrrd*

• • •

While I agree that the name is imprecise—apparently "RSS with enclosures" didn't catch on for some reason—I think that everyone figured out that pod-casting wasn't tied to iPods about six months ago. And while it's meaningless from a technical per-spective, calling them podcasts was brilliant from a marketing perspective, because it associates the idea with the iPod (a fantastic brand), and it perfectly communicates the simple idea that's at the core of podcasting—content is "broadcast" straight from the content producer to your personal iPod. So it's a personal form of communication, under your personal control, not just a means of tuning into a corporate broadcast. Brilliant.

And while you're right that one function of pod-casts will be to serve as "farm teams" for the big radio broadcasters, I think that it's much more than that. Aside from the "anybody can do it" aspect, podcast-ing offers many more advantages—the listener con-trols what they listen to and when, in a way that's physically impossible for radio. And in the long run, that means that podcasting is a better medium than radio, for both the producers and consumers of the "content," which means that in the long run podcast-ing will displace radio.

There are already surveys saying that over one million people in the US have listened to a podcast (before iTunes added podcasting support, mind you). So it's *already* a mass market, and growing rapidly, so (in my opinion) it's a matter of time before pod-casting bypasses radio in the same way that CD-Rs bypassed cassette. Sure, radio will never die out com-pletely (for broadcasting real-time news, it's great), but it'll become less and less powerful as a communi-cations medium, because for most purposes podcast-ing is dramatically better than broadcast radio.

I think you underestimate how terrible broadcast radio has become. With rare exceptions, due to cor-porate mergers and the ascendence of accountants and lawyers, radio has no personality and no range. They don't play music because it's good, or because people like it, but because it maximizes station prof-its (i.e. they won't play anything unless they're paid to play it). So, similar to the way bloggers comple-ment the corporate news channels, podcasting com-plements the corporate radio channels. This means that news and music that wouldn't otherwise make it to an audience can do so. Sure, 90% of podcasting is bad, but 90% of everything is bad. And in return for the "cost" of having to filter through bad podcasts to find the good ones, there's the very real value of get-ting access to news and entertainment that is better than you can otherwise get.

For example, I have personal interests that aren't covered by the mainstream media. For example, I'm a software developer and a science fiction fan, and like to keep track of international news, topics that just don't get deep coverage on radio. But with podcast-ing I can get what I'm interested in, and I can listen to it exactly when I want to. And it's not all nice stuff—some mainstream content companies have fig-ured out how to play in the podcast world—the BBC and CNN both have great podcasts, and there are more every day.

The only people that lose as podcasting wins are the companies that control distribution of audio con-tent, especially ClearChannel. And that's a good thing.

—*Laird Popkin*

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.

Get a Clue

Business writers don't get it. Neither do the pundits. What causes the enduring survival of Apple? Why do people buy Macs? Why do they carry iPods?

Ask an economist, and you get the unhelpful answer that people are acting against their own economic interest.

Ask a business school class, and you get the even less helpful answer that Apple has locked their computer market in, but that they can't expand it, and they're doing the same thing with the iPod.

It's all about user experience, my beloved readers, and I've got a couple choice examples of it. But first, I want to apologize to you all.

An Apology

I know you all missed me last month. (Or not. Hush, you!) Unfortunately, my trusty PowerBook suffered a catastrophic hard drive failure, involving a certain author walking into his room to hear a loud "CLICK! CLICK! CLICK!" noise after a long day at work, and I lost every inch of my preparation for the July issue, including both last month's *Bloggable* and a review of Boswell, now in this issue[1]. *N.B.: This column will be more bullet-point-ed than usual, because of the way Boswell treats entries. I don't think you will mind.*

You have my deepest apologies. It means, of course, that my most interesting remarks and links about the big Intel switch-over, were lost; like a plate of leftovers, I have some lukewarm "react," in journalist-speak, as a service for those of you who party like it's 1999. But, also like leftovers, they're never as good as the first time. It also means the end of my eloquent, epic lamentation for the PowerPC—though losing said lament will probably add years to your life.

But that's water under the bridge. And now, for something completely different!

You Just Don't Get It

So, I said just a few lines ago that business writers, business schools, economists, and almost everyone else who insists on a numbers-based approach to the computer market just doesn't get Apple's prod-

ucts and their enduring successes: the Mac as a niche market and the iPod as a best-of-brand device. Here's a sample from last month:

- As everyone reading this column knows, the iPod is the most popular device in its market, by a long shot. "What must it feel like to be one of the iPod's competitors?" I wonder from time to time. (I pity Sim Wong Hoo, Creative's CEO, in particular.) *Fast Company* interviewed six corporate highers-up at Apple's competitors in the portable audio market for their June issue, and asked them what it was like competing against an instant market leader[2]. They have the answer: in short, it sucks.

- In spite of their article about iPod competition, which *makes this very point, Fast Company* ran a fascinating article[3] in their August issue, called "In Praise of Ecosystems." In it, they demonstrate, like most business magazines, that they just don't understand the success of the iPod (maybe John Sviokla should read Jennifer Vilaga's notes from June). Oh, and they get their numbers wrong: they say the iPod shuffle isn't a success. Fire your fact checkers, guys…I'm going to get up on my soap box here: the problem with the business-school perspective on this is that it completely ignores user experience. Sviokla writes:

  > Throughout industrial history, open standards have enriched customers and fueled productivity… Likewise, the Internet, with its open set of tools for communication and presentation, provides standard parts for knowledge work.

  While that's *true,* it doesn't explain the real reason for the iPod's success, which is, large

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[1] http://www.atpm.com/11.08/boswell.shtml

[2] http://www.fastcompany.com/magazine/95/fast-talk-extra.html

[3] http://www.fastcompany.com/subscr/97/open_essay.html

sales numbers notwithstanding, *not* the iTunes Music Store. It's user experience, Apple's forte. Someone at Apple send John Sviokla an iPod, and let him play with it, and see if he still thinks in numbers.

- Let's spend more time looking at economic theory's non-comprehension of the iPod and user experience. The latest instant-classic example? Free Napster. A student survey at the University of Rochester found that even when students have Napster service for free apparently they still choose the iTunes Music Store—at 99 cents a track. How many, do you ask? Yes, that's right. 70 percent[4]. The survey also found no students in the sample who had purchased songs from Napster to put in their permanent collection; for that, they turned to Apple. So much for brand loyalty. And, yes, it defies Economics 101. Why would you use Napster's service but then buy the tracks outright from Apple? Oh, that's right, the part of Econ they always forget, that people won't pay for substandard products.

- If you've been keeping up with this column, you've caught that Apple has been having a hard time getting Motorola's iTunes phone into the hands of consumers everywhere. (If I were Jack Miller at As the Apple Turns[5], I would be joking about how this is just the Motorola curse. But I am not funny.) Since economists and pundits don't think Apple can sell a $500 luxury device—they should ask HP about the $600 iPAQ hx4700—*Forbes* thinks Steve Jobs is be planning an end-run around the carriers. Cingular, Verizon, T-Mobile, et al., have balked at the idea that consumers might prefer *not* to pay again for their music. Jobs, their vision says, could beat them by making Apple into a mobile virtual network operator, or MVNO. They would lease time[6] from one of the major carriers, just like Virgin Wireless or ESPN. And you'd get the iTunes phone. I'm not holding my breath, though; Steve Jobs seems like too much of a control freak to put the Apple brand on an infrastructure as disastrously spotty as any of the major cell networks'. (Can you hear me now?)

- Any business consultant can tell you it doesn't make sense to release a Mac version of your software; it's only 5 percent of the market, after all, on a good day. Om Malik had a marvelous essay in *Business 2.0* in March on why, in spite of that, it's better to develop for the Mac[7]. I confess that I missed it in the springtime, but now it's here. He says:

  > I think these companies are focusing too much on the numbers and missing the more promising opportunity. Why? Because rolling out a product for the Mac platform ensures a certain buzz and élan, which begets more buzz, which begets sales. Let me explain. According to Apple, there are about 12 million active Mac users. Not a lot, that's for sure. But among them are most of the influencers—high-profile bloggers, most (if not all) technology journalists, and, of course, the hipsters.

  And just now, he follows up with the example of The Gizmo Project, which he says see 30 percent[8] of its downloads for Mac users, way out of proportion for their numbers. Malik says it'll only help The Gizmo Project.

- Mac shipments rose in 2005. The sky must be falling in Rob Enderle's office! (Though, to be fair, so did almost every other PC manufacturer's.) But Apple's numbers rose *sharply,* almost 35 percent. This has been interpreted, by Needham & Co.[9], for instance, as meaning many Windows users are switching to Macs. Ars Technica[10] fingers "the halo effect on new users," which they say means many iPod owners end up buying Macs[11] as their first computers.

The Big Switch, in the News

As I said before, I'm sure you've heard *all* about the upcoming switch to Intel CPUs in Macs. But now, we

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[4]http://www.ecommercetimes.com/rsstory/44531.html
[5]http://www.appleturns.com/
[6]http://www.forbes.com/home/technology/2005/07/08/apple-cellphone-service-cx_de_0708apple.html

[7]http://www.business2.com/b2/Web/articles/0,17863,1037957,00.html
[8]http://gigaom.com/2005/07/14/gizmo-project-hit-with-mac-users/
[9]http://www.macworld.co.uk/news/index.cfm?RSS&NewsID=12117
[10]http://www.arstechnica.com/
[11]http://arstechnica.com/news.ars/post/20050720-5120.html

know that Apple and IBM are really getting divorced; and there's lots of interesting news on that front.

- The broken 3 GHz promise may be just a pretext for the big Apple switch, according to Hannibal at Ars Technica[12]. (In fact, he notes that the technical people at IBM didn't want to promise Apple 3 GHz anyway, since it couldn't be done on 90nm fabrication without changing the architecture of the CPU.) What does he think the real reason is? Hannibal fingers Apple's shifting focus:

  > [W]hat Jobs is really doing is shifting the focus of Apple from a PC-era "performance" paradigm [the Mac] to a post-PC-era "features and functionality" paradigm [the iPod].

  Basically, they've taken away the ability to win on the performance front, since they were losing it, and now they're going to compete on features alone. I'm sure Intel's huge discounts[13] help, too.

- Hannibal at Ars Technica[14] describes why Apple is starting the transition from PowerPC to x86 at the bottom of their line-up[15], as well as why they chose Intel over AMD and the psychological impact of losing the PowerPC.

- In a nation of no-fault divorce, Apple and IBM are not taking the easy route. Oh, no, Apple is insistent that IBM has been cheating on them with Sony and Microsoft; and now IBM retorts that Apple's philandering with Freescale, née Motorola is what cost them a deeper G5 line[16]. I kid you not, Rod Adkins, vice president of development for the group that makes the POWER chips, says:

  > They had Freescale primarily for the low-end and mobile solutions, and they really had IBM focus more on PowerBook, xServe and iMac. That's where we collaborated deeply

with Apple...[t]here's really nothing in the architecture that prevents having an end-to-end line that can serve [all of] their needs.

Makes me wonder, you know, why they didn't *tell* Apple that. And whether it's occurred to them that 3 GHz was a little bit important to Steve Jobs. Hmm. Let bygones be bygones, Rod; you have Sony's and Microsoft's vastly more lucrative contracts now.

- Julio Ojeda-Zapata, the *St. Paul Pioneer Press'* tech writer extraordinaire, reports that St. Paul, Minn.-based CodeWeavers wants to bring their toolkit for Windows software emulation in Linux to OS X[17]. They've already got a successful product, CrossOver Office, that runs Microsoft Office applications in Linux without WINE, and there's talk, Julio writes, of supporting games with their technology.

The iPod Keeps Making Headlines

- Batten down the hatches, readers! It's time for rampant iPod chatter and speculation! John Gruber notes, calmly, the change in the iPod lineup. Oh, the usual: color screens on all iPods, no more 40GB model, price changes on the iPod shuffle. The worst rub, though? He reminds us there's no more Chicago[18]— and offers up a correction[19] on the state of Mac rumors today. In other iPod news, of course, HP announced that it will be rebranding the Shuffle[20] as well, for the corporate consumer who just can't get enough screenless goodness.

- CNet reports[21] that the *Wall Street Journal* (which got in ahead of the crowd on the Intel transition, FYI) is reporting that Apple is getting into the business of selling videos. Music videos, that is. For $1.99 apiece. As early as September. Business 2.0[22] adds that they have

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[12]http://www.arstechnica.com/
[13]http://arstechnica.com/columns/mac/mac-20050710.ars
[14]http://arstechnica.com/
[15]http://arstechnica.com/columns/mac/mac-20050608.ars
[16]http://www.eweek.com/article2/0,1759,1833126,00.asp

[17]http://www.twincities.com/mld/twincities/business/11970799.htm
[18]http://daringfireball.net/2005/06/shuffling
[19]http://daringfireball.net/2005/07/plugged_leaks
[20]http://home.businesswire.com/portal/site/google/index.jsp?ndmViewId=news_view&newsId=20050701005107&newsLang=en
[21]http://news.com/2061-10793_3-5792393.html?part=rss&tag=5792393&subj=news
[22]http://business2.blogs.com/

access to an internal Disney e-mail which suggests incoming Disney CEO Bob Iger wants Apple to license their content[23] for a video iPod.

- *The Economist* fingers Apple for turning another small-time product into a mainstream product. Look at their track record: USB, FireWire, MP3s, iCal files, and now podcasts. They write:

  > So far, any confusion about the term or the process has not mattered much, because podcasting tended to be almost exclusively for the young, geeky, or both. Last week, however, that changed[24].

- Sean Rozekrans[25], a new name around here, thinks the iTunes interface has gone stale. With the addition of podcasts (and, I'd add, the iTunes Music Store), it seems clear that Apple is just running out of useful space. It's called clutter[26], folks, and it's a problem. Twelve-step programs and all. Poor Sean, though, he still thinks Apple cares about iTunes' UI:

  > It's all just minor tweaks to the interface and I don't get it why Apple hasn't thought of it yet. They are one of the most interface orientated developers I know.

My Sister Got Bitten by a Moose Once
There are always odds and ends lying around the Bloggable HQ (i.e., Wes' database), but I feel like I should share them with you all. Enjoy!

- So we all know about, you know, the GUI[27] Microsoft stole, the menu bar[28] Microsoft stole, and the desktop layout[29] Microsoft stole. Now Jens Alfke finds they appear to have lifted his implementation of RSS in Safari and

copied-and-pasted[30] the UI into IE7 (original post has been deleted, but it was cached by a reader[31]). Naturally, these sorts of things are difficult to prove, because it could have been intuition; but Jens doesn't think so. Anyway, check the photos of screen shots he links to.

- Congratulations! Mike Matas, 18 (i.e., *not even as old as yours truly*), makes some of the most beautiful and sublime icons on Earth. He just accepted a job at Apple[32]. He's been working with Wil Shipley at Delicious Monster[33], and before that did gorgeous work at Omni Group[34]. What a résumé. Good luck, Mike!

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[23]http://business2.blogs.com/business2blog/2005/07/scoop_disney_co.html
[24]http://www.economist.com/business/displayStory.cfm?story_id=4157673
[25]http://www.srozekrans.nl/
[26]http://www.srozekrans.nl/2005/07/iface/
[27]http://lawcrawler.findlaw.com/MAD/lawsuit.htm
[28]http://www.mackido.com/Interface/ui_history.html
[29]http://www.theapplecollection.com/various/why_prefer_mac.html#20

[30]http://www.crawlspacemedia.com/weblog/article/57/retractor
[31]http://www.crawlspacemedia.com/weblog/
[32]http://www.mikematas.com/blog/2005/07/moving-to-apple.html
[33]http://www.delicious-monster.com/
[34]http://www.omnigroup.com/

Pod People

by Eric Blair, eblair@atpm.com

I admit it. Back in October, 2001, I was one of the haters. Before Apple's much-hyped announcement of what would eventually be known as the iPod, I made the following statement on the ATPM staff mailing list as to why I wasn't expecting any sort of PDA or portable music player:

> Maybe it's me, but I don't think that Apple tosses around the word "revolutionary" lightly—the iBook and TiBook revs weren't revolutionary, for instance. I'm almost expecting something entirely new or a radically different way of doing something that already exists.

Once we learned the details of the iPod, I still wasn't convinced. An overpriced MP3 players that worked with less than 5% of the computer market was supposed to be revolutionary? Personally, I thought the biggest impact of the iPod's release would be that the press stopped salivating whenever Apple issued a vaguely-worded press release.

Within a few months, it was clear that I'd been mistaken. For the record, I like my crow grilled, with a hint of mesquite.

Joining the In Crowd

Although I was wrong about the iPod's high price preventing it from taking over the portable music player market, it did prevent my from joining the revolution until May of 2003. Around the same time I started to feel like I could afford the world's best portable music player (and why buy anything but the best?), I started to hear rumblings about the imminent release of a revised iPod.

On Monday, April 28th, Steve Jobs announced the 3G iPod. On Friday, May 2, the new models went on sale and I headed to the Apple Store at the Rockingham Mall. Half an hour after arriving, I walked out of the store, the proud owner of a 30 GB iPod.

Once I had my own iPod, I went rather iPod-crazy. If there was something I could do with my iPod, then I did it. Naturally, my music almost immediately found it's way onto my new toy. Since I'd recently been burned by laundering my cell phone, all my contacts were added to Address Book and synced to my iPod. A "Soccer" category was added to iCal so I could track the games I was scheduled to referee,

and these events were also copied to my iPod. I even spent a good deal of time writing an application to work with the iPod's Notes feature, but that sort of fell by the wayside, though I do still keep the code handy.

Lately, my iPod usage has been mostly limited to playing back my music collection, though the contact feature comes in handy for those occasions when I forget my cell phone.

Listening Habits

It would be fair to say that I'm a packrat with sporadic organizational skills. Typically, my CD collection is organized alphabetically by artist, then sorted by release date. My iTunes collection, however, lacks anything resembling this level of organization. My permanent playlists are limited to songs I've recently added to iTunes without playing, iTMS tracks that I haven't backed-up, and MP3s that I haven't re-ripped as AAC files. Basically, I use my iPod as a large-capacity shuffle, though I occasionally get the urge to hear a particular album or build an On-The-Go playlist.

As I've ripped pretty much every CD I've ever owned, this has led to some interesting reactions. Plenty of times, a particular track has come up and forced me to think "Wait, I paid for this crap?!?" Other times, friends have looked through my music collection and stopped when they stumbled across a particular artist—no, I don't particularly like Rammstein or Jamiroquai, their tracks just came on CDs that I bought, so stop giving me *that* look.

For the record, I more of a rock-type guy, both classic and modern, though iTunes wants to classify some of of my favorite artists as "Alternative." Personally, I thought Alternative stopped being alternative back in the late-90s, but what do I know?

"Accessorize"

I've almost never liked earbuds, so I was somewhat surprised when I regularly used the the iPod's bundled headphones for almost a year and a half. I actually started to phase-out the earbuds after the first time I tried running with my iPod—the buds kept falling out of my ears.

To address this, I picked up a pair of Sony MDR-G52 behind-the-neck headphones. These headphones have served me fairly well over the the past few years, finding use both while I exercise and in quieter environments. I've beat on the headphones a decent amount, regularly tossing them in my gym bag, but they've held up quite well.

My only complaint about the Sony headphones is that they don't work particularly well with certain eyeglasses—the MDR-G52's ear clips sit in basically the same place as the temples on many glasses. If I use the Sony headphones while wearing my corrective lenses, I'm faced with the choice of wearing said glasses incorrectly or having the temples pushed into the side of my head. My sunglasses, which feature a different temple design, do not have this issue.

For louder environments, I've switched to the Sennheiser PXC 250[1] headphones. These noise-canceling headphones feature the same folding design as the PX 100[2] reviewed in our last issue.

Having used both the PXC 250 and a variant of the Bose Noise Canceling headphones an airplanes, I'll admit that the open-air Sennheisers do not block as much noise the ear-covering models that are available. However, they do an admirable job of blocking out the sound of equipment and polite coworkers at my office (persistent coworkers will be able to overcome any noise canceling technology, however).

The sound quality on the PXC 250 is quite good, and I actually think they sound better with the noise canceling feature active—the music just sounds richer in this mode, though I clearly don't have the same ear as some of my acquaintances.

The PXC 250s include a soft case and adapters for connecting to the headphones to .5" stereo jacks and airplane headphone jacks. Additionally, the case contains sufficient room to hold my iPod Remote, which I often use when blindly shuffling through my music collection.

My only concern about the Sennheisers is their durability. The metal and plastic styling looks like something my father would have used in the 80s, and I have a hard time believing that the PXC 250s could withstand the same beating as my Sony headphones.

A number of my other other accessories have already made appearances in the pages of ATPM, including two of the cases I've tried, the Marware

SportSuit Convertible[3] and the Contour Showcase[4]. Around the end of last year, I added an iPod Sock to my collection and was, until recently, switching my iPod between the Showcase and the Sock, depending on where I was heading. Sadly, as of this writing, my green Sock has gone missing.

Somewhat stretching the definition of an iPod case, I've also used a BOOQ BP3 backpack[5] when I've been on the road and needed to carry supplies. Sadly, the BP3's headphone passthrough isn't large enough to accommodate the plastic connector on the iPod Remote.

Finally, there's my big iPod case—my Honda Accord (yes, I'm officially pushing it here). For a while, I experimented with a Griffin iTrip[6], but I grew tired of trying to find a reliable station in the Boston area, not to mention re-tuning several times over the course of longer trips. Since my car didn't have a cassette player, I decided to install a Dension ice>Link[7] so I could control my iPod through my stereo's CD Changer controls.

I was a bit apprehensive about the prospect of pulling apart the front of my car, but I found some decent instructions for dealing with Accords. After

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[1] http://www.sennheiser.com/sennheiser/icm_eng.nsf/root/04924
[2] http://www.atpm.com/11.07/headphones.shtml

[3] http://www.atpm.com/9.09/sportsuit.shtml
[4] http://www.atpm.com/10.01/showcase.shtml
[5] http://www.atpm.com/10.07/bp3.shtml
[6] http://www.atpm.com/9.11/itrip.shtml
[7] http://www.densionusa.com/icelink_info.htm

a bit of prying, some drilling, and the application of Velcro, my iPod was almost completely integrated with my car stereo and safely stashed in my center console. Even better, there were no unintentional spare parts.

What's Next?

I admit, I've been casting an envious eye towards both the new color iPods and the iPod shuffle. I don't feel an overwhelming need to carry all my photos in my pocket, but I like the idea backing up photos from my digital camera without needing a computer. Also, I wouldn't mind having an iPod model that's seeing active development from Apple.

When I think about the Shuffle, however, I see it as something that would augment my current iPod instead of replacing it. Essentially, the Shuffle could become my exercise iPod and my current one would keep the remainder of the music-playing duties.

Of course, I'm really holding out hope for a carrier-subsidized, non-crippled iTunes phone—I'd at least like to see what Motorola and Apple have developed since they first announced their partnership over a year ago. I don't know about the carrier-subsidized and non-crippled parts, but according to iLounge[8], Motorola's CEO Ed Zander read a statement from Apple that the iTunes phone "will be unveiled at a separate music event within the next 66 days, and shipped this quarter" while he was speaking at the MOTONOW media event.

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[8]http://ilounge.com/index.php/news/comments/motorol a-motonow-event-begins-itunes-phone-not-being-show n/

Outlining and Styles, Part 2

Desktop Publishing and Readability

When I mention styles, you probably think I mean the stuff of page layout, the visual magic that makes a page attractive and readable. I don't mean that at all in this column, but let's not ingloriously abandon that notion without comment. It is worth books in its own right; some of these books describe principles that all writers should know. The problem is that at a certain point, several philosophies of design converge and battle for your allegiance. Working out which ones to adopt is a worthwhile exercise.

Font selection and careful design have great power, power to enhance what you're trying to communicate. So please don't avoid the incidental message that your work flow for published items should end with the capability to do this as well as you can.
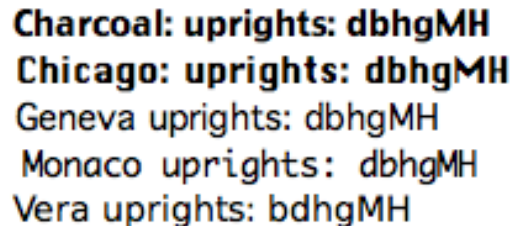
Screen Appearance

But this column is about working on the screen, well before you produce something for others.

In a [previous column](#)[1], I've noted some things about font design: nearly all the meaning of words is conveyed in the top half of the line. Nearly all the readability is in the bottom half. You can think of the top as the melody and the bottom as the rhythm.

A huge amount of effort has gone into type design using effects you should know. All type these days is based on readability metrics derived for the printed page. Some fonts are optimized for screen viewing, but their design heritage still comes from the old rules developed for the printed page. Chicago, Charcoal, Geneva, Monaco, and Vera are all examples of this approach. Chances are that you use one of them for much of your screen work.

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[1] http://www.atpm.com/10.08/atpo.shtml

But there is a growing understanding of cognitive principles for screen fonts, and you may see a new generation of designs for screen use within a year. They'd be used by people who want the very best readability and functionality on screen. This would send WYSIWYG writing to the dustbin.

Good practice for many will be to use one set of fonts and styles for writing and another for publishing. The needs are just different. Some unfamiliar needs for screen styles will be covered below,

Apple sponsored the first efforts at antialiasing fonts (a notion first developed at [MIT's Media Lab](#)[2] in the eighties). It is my opinion that with some attention to selecting the right font and size, Apple's antialiasing algorithms do far better than what Microsoft offers in ClearType. What we are talking about in this case are fonts not specifically designed for screen display.

A problem is that Apple keeps tweaking the antialiasing routines. They are different depending on your hardware and operating system, and different folks react differently, with far greater variance of preference than with printed fonts. That means that the result of one person's research isn't portable to another. Also, once you exhaustively test all your fonts to determine the best one for you and your equipment, you'll have to start all over again with a major operating system update.

Guess what? Not all applications render text the same way even using the same settings. As it happens, applications that use straight Quartz text ren-

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[2] http://www.media.mit.edu/

dering give you colors in the sub-pixels instead of mere grayscale (if the Font Smoothing option is set to LCD in System Preferences). In effect, colors allows for millions more perceptual options, and Apple knows how to leverage them.

But some applications just don't use color, even though they clearly use Quartz. OmniOutliner renders text using grays, for instance, although the text in its dialogs has colors. OmniGraffle antialiases text with gray pixels unless it is actively being edited. Pages and Keynote both render with gray, as does InDesign. Even programs that use colored sub-pixels switch to gray when shadowed text is used. (In Keynote you can even control the color of the shadow.) The ATPM staff has come up with some credible theories for why this is, but we won't go into the details here.

I suggest experimenting a lot, starting your with a san-serif "humanist" font. Humanist fonts flare out in spots, which flies in the face of pre-antialiased screen font design. The old model was to have strong, straight uprights. Apple's (but not Microsoft's) antialiasing routines do very well with subtle flares producing a more liquid feel. It makes words more readable because the letters (with well kerned fonts) form more subtly identifiable assemblies.

Oregon
Oregon Bold
Optima
Optima Bold
Chianti
Chianti Bold

Humanist Examples

On my machine, I use near-blacks instead of the default black for the text color. If you have a setup and application that already uses colored sub-pixels, the use of color as the base has wonderful effects on the sub-pixel coloring routines. And this is amplified when the flare serif effect comes into play.

Chianti 13
Chianti 13

This image shows many of the effects we just discussed. The two examples have the same everything (font, size, color) but are rendered radically different. The top example is from TextEdit; the bottom is from Pages.

Have fun experimenting.

One more aside: in some respects we still haven't reached the height of the old operating system regarding font display, and we may not again in my lifetime. For a brief period, we had TrueType GX fonts and display technology. GX fonts were scriptable to an amazing degree, using an obscure language.

The most common scripts were to detect context and swap characters; for instance, you might have one type of "Y" in the middle of a word and another at the end. But you could do a lot more, including all sorts of animated effects. You could, for instance, add iridescence in the flare-serif of a drop cap, so subtle that you couldn't see it, but only feel it.

We ran experiments that tracked eye movement and slightly changed a word's display as it was read, actually just before it was read. GX fonts made this possible.

Styles as Metadata

Now on to our real topic. For our purposes here, to "style" text means to assign an attribute to a block of text, to mark it with meaning. The visual display of styles in some way is a separate issue—related of course.

If you are an outline user, you already have accepted the notion of one sort of attribute: the assigning of a text block as a "child" of another. You

probably also are familiar with the assigning of attributes to the containers of text blocks, attributes like "high priority" or "this was written on such and such a date."

OmniOutliner[3] allows assignment of tags through columns. Most of our power outliners have tagging or marking strategies for containers as well. Some like NoteBook[4] use "stickers," which are graphical tags. But just about all of them let you mark or tag containers.

Together with linking and nesting we have the meat and potatoes of relating containers.

In this column, we look at attributes assigned to text blocks that are *within* containers, the type of text block that can be selected by a cursor drag, for instance.

You already use two styles frequently: emphasis and links.

The most mundane style is for emphasis. There's no reason we should be limited to 300-year-old print technology for the emphasis palette: bold, italic, underlined, quoted, or punctuated. Why should I use the same style for laughter that I do for question emphasis? It might not change the way you write, but now that I have let you know the barrier wasn't really there, you feel better, right?

The real reason we're interested is that styles are a good way to mark text blocks with the intent of adding metadata. Outlining is all about structure. All our power outliners assume the structure stops at the envelope of the note or section. But why?

Making a hyperlink is a matter of adding metadata, metadata that says:

> Spring from this text block to *this place here*. Don't bother to show me the destination until I get there, but show me that this is a link by underlining and turning blue.

Putting a text block in quotes is also a matter of adding metadata. Some day, Spotlight might even recognize text marked in this way (and others).

Highlighting a text block adds an attribute, one that some of our power outliners recognize as such.

Let's review what we can do today and then speculate on what we should demand in the future.

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[3]http://www.omnigroup.com/applications/omnioutliner/pro/

[4]http://www.circusponies.com

ATPO Power Outliners and Styling

The high watermark for named styles in existing Mac text-oriented programs was the old Nisus Writer[5], which only runs in Classic and is still sold at the original, now-too-high price.

You could set named styles easily enough, and any inline graphic (even graphical text) could have a style applied as well.

But the cool thing was that it had an amazingly powerful scripting language that recognized styles. So you could write a macro that said something like:

> Find all the text styled with "mild bold" that is in paragraphs marked "done" and that don't have dates in them, select them all, mark them with style "OK" (which may modify visibility differently), and make a copy of only those paragraphs in a new document with the following new styles. . .

I wrote the most extraordinarily complex style management and outliner system using Nisus and its macro system as a base. There's nothing like it on Mac OS X, certainly not Nisus Writer Express[6].

If we had something like this today, we could splice on all sorts of cool analyses that used facilities like we mention in the comment on DEVONthink below.

Clearly, the ideal minimal behavior would be that when we assign a style, the application recognizes it and helps us do something about it. We should be able to see the style or not at our option.

In this section, we'll review what the existing state of support is from our *ATPO* power outliner list, running through it in alphabetical order.

No outliner does a good enough job, but we'll show you what you can do today, then suggest capabilities for the future.

Circus Ponies NoteBook[7]
NoteBook supports text styles in two ways.

One way concerns "favorites." The simplest way for this to be supported is for the outliner to let use the built-in Favorites list in Apple's font panel, which all good application citizens do.

NoteBook uses a system service to go one better (but not much better). Instead of forcing you to go through Apple's font panel, you can work with similar

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[5]http://www.atpm.com/8.03/nisus.shtml

[6]http://www.atpm.com/10.11/nisus.shtml

[7]http://www.circusponies.com

capabilities via built-in style management. You use Format menu commands to determine your styles in a document. You can alternatively use the font panel, but NoteBook provides better access to kerning control and alternative characters like ligatures through the menus.

Once you create a style, you open the Style Sheet shown in the screenshot.
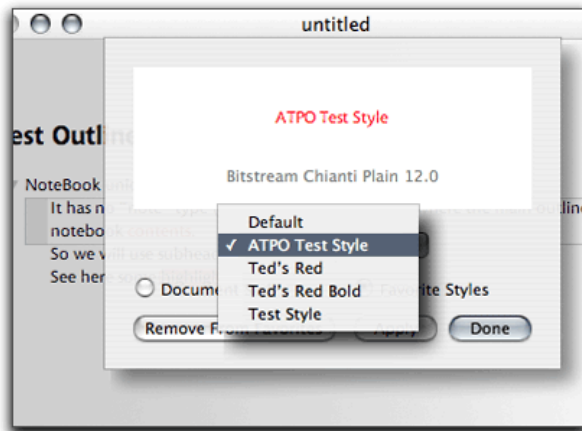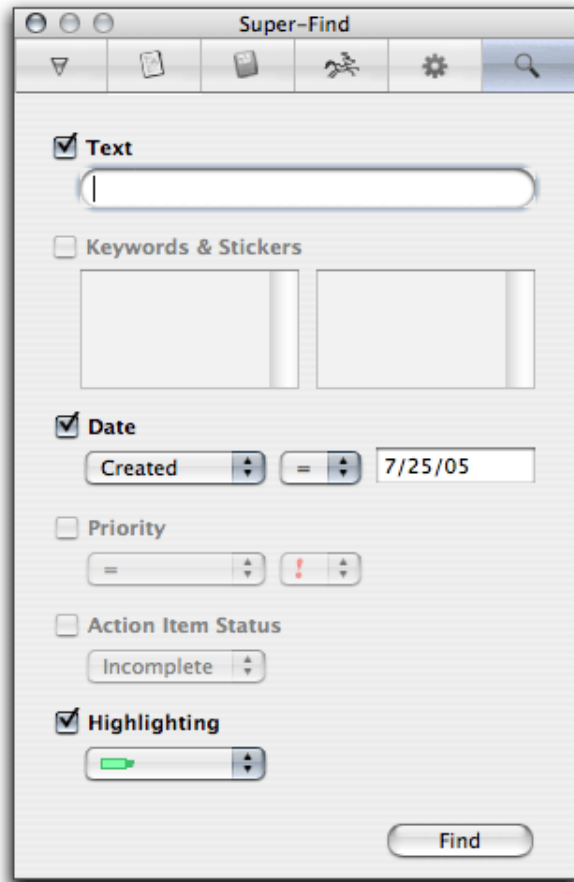
Circus Ponies NoteBook Style Sheet

Then by clicking the next or previous buttons, you browse through every style you've set. If you hit one that you'd like to save in the application's memory, click Favorite Styles and enter a name for it. You can save "ruler" information such as justification in the style.

It's nice, but there's no way to apply these favorites without going through the sheet again.

Much more interesting is the support for highlighting. You can set six different highlight colors and easily highlight text blocks. NoteBook automatically builds an index of all highlighted text collected by color. That's very nice, since you don't even have to think about it: go there and find it.

But more powerful is the Super-Find search feature.

Circus Ponies NoteBook Super-Find

You cannot do Boolean queries like finding stuff that has "this *or* that" or "this *but not* that." It is just an "and" search. But the ability to search on factors that mix cell and text metadata is a powerful idea. The report page where the results are shown is particularly elegant.

I think that with a little noise from users, Circus Ponies will beef this up to include making highlighting invisible, allowing highlight types to be named, and adding Boolean searches and regular expressions (which is a complete way to search for text patterns).

Hog Bay Notebook[8]

Hog Bay Notebook has a lot of things to recommend it, but support for styles is not one of them.

The only thing that could be said of HBN is that it has the same Favorites sheet as Circus Ponies Note-Book, as provided by the system. Each page is saved internally as an RTF document that you could (if

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

you want) open and edit in another application with styles intact. That's a big advantage.
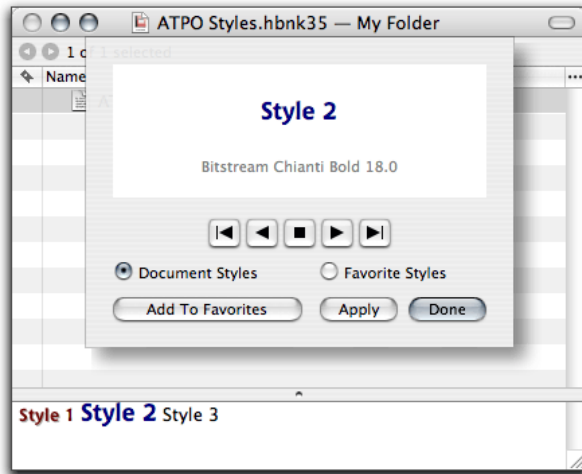
Hog Bay Notebook Style Sheet

Hog Bay Software is highly attuned to user feedback. I bet it would consider better style support if asked. HBN has a pretty sophisticated "assemble" feature that "flattens" an internally hyperlinked outline with clones into a linear document. This is effectively a translation. Wouldn't it be cool if that translation operated on styles in a user-settable way?

(Hog Bay, incidentally, is the only power outliner that mentions the competition by name and features in its documentation. The next version may change the name.)

NoteTaker[9]
NoteTaker has a favorite style selector, like some of the other power outliners. But its selection is in the menus. That matters because any menu item can have a key command associated with it.

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[9]http://www.aquaminds.com/
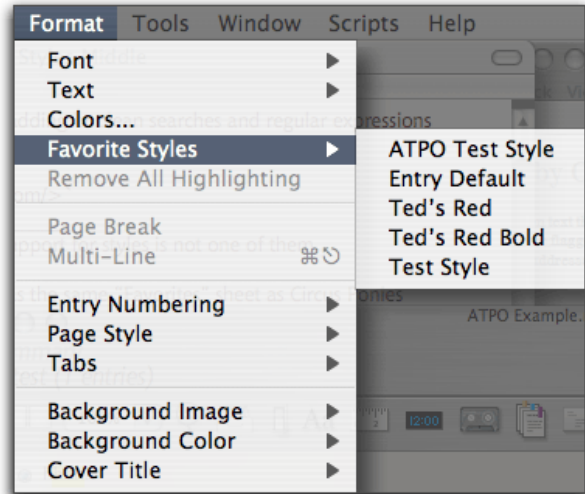
NoteTaker Style Menu

In NoteTaker, you highlight text by Command-dragging text blocks. Colors are easily set or changed; there is no small selection as with, say Finder labels.

NoteTaker has a feature like Circus Ponies' Super-Find. It is called Highlight and Summarize but doesn't search for marked or styled text. NoteTaker's AppleScript support is pretty good, but scripts cannot "see" styles or highlights.

Of all the power outliners, NoteTaker seems to be adding major features the fastest. Users should get on AquaMinds' case because they are behind the curve on style support. They should start with making things visible to scripters who can add their own features.

OmniOutliner[10]
OmniOutliner has a complex system for setting and managing styles. It is mainly applicable to header styles. Header styles aren't of much interest to us in this column. The idea with header styles is that you set a style that is adopted for all headers of a particular level. If you demote a header then it takes on the style of the lower level. TAO[11] and Inspiration[12] also have settings for this.

In the OmniOutliner world, you use the same controls to override the defaults for both headers and notes. The user interface makes sense, but it is hard to grasp at first because it is unlike anything you have

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[10]http://www.omnigroup.com/applications/omnioutliner/pro/
[11]http://blue-beach-systems.com/Products/Software/TAO/
[12]http://www.inspiration.com

seen. The screenshot shows the major elements: a style inspector where you can see and set attributes for the selected header or text, a similar display in the lower left that shows info about the documents' styles, and a toggled overlay on the right that gives some indication of what is applied where so far as headers.
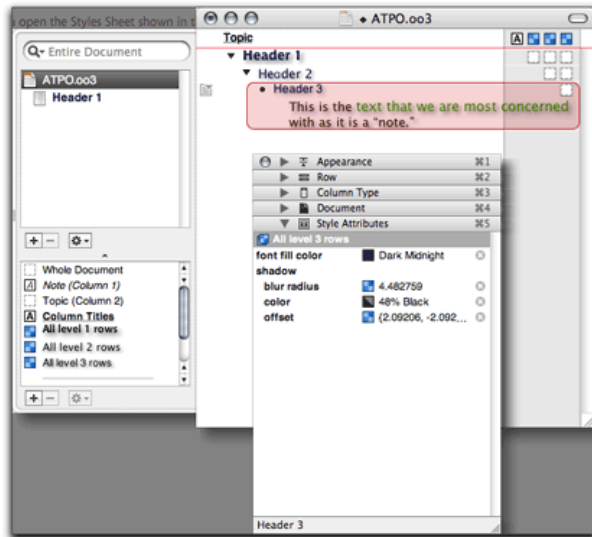
OmniOutliner Header Styles

Another screenshot shows the "note" area, which is what we really care about. Things are much weaker there.
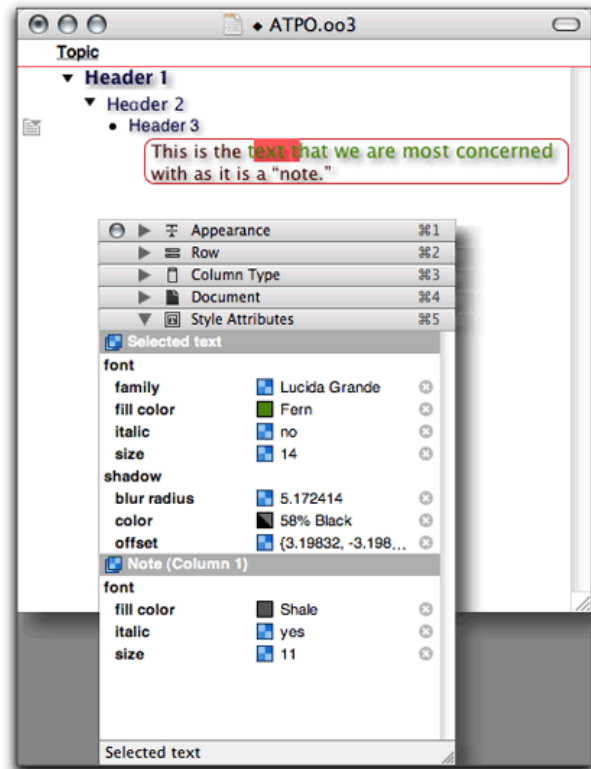

OmniOutliner Note Styles

You can cut and paste styles, which is very nice, but there is no system to name styles. For instance, you cannot set up a style as "mild bold," which would take whatever the style was and lighten the color a bit and darken the shadow, both based on what was there.

OmniOutliner has terrific AppleScript support, but scripts cannot see styles, so you can't do anything with them. I'm willing to bet that with enough requests, Omni Group will give us named styles in the note field and the ability of AppleScripts to see and modify them.

Tao[13]

Tao is a purist's outliner with the best developed facility for outline manipulation among our power outliners. It has a "style sheet" feature that sets default styles for the outline. And among its many palettes is the one shown below.

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[13]http://blue-beach-systems.com/Products/Software/TAO/
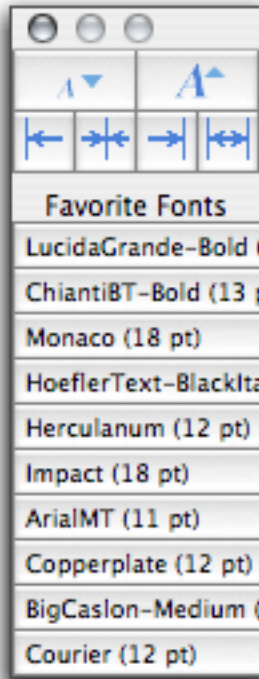
Tao Favorites Palette

You can store ten Favorite Fonts on this palette, no more and no fewer. You use this palette by selecting text in notes or headers then clicking the button you want. It isn't quite named fonts, since you cannot assign names. The descriptions, as you can see, don't include information other than font name and size. And you cannot see the whole line.

I think Tao is positioning itself as a writer's tool. In that case, the support for named styles that retain their identity on export to Word and Pages certainly is in the future. But remind Blue Beach Systems, won't you?

Tinderbox[14]

Tinderbox allows text to be marked in an indirect way. You can select a text block and assign a link to it. Tinderbox links are named, and you can create any number of custom-named links. Links can overlap, and text blocks can have any number of links assigned.

All links, regardless of name, look the same appearance-wise; they turn a color set in the preferences. The default is blue. You can use these links as a style marker, with only the blue visible indicator, at least in the text view. Each link type does have

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[14]http://www.eastgate.com/Tinderbox/

a color assignment that shows in the map view. It is handy in that view but not helpful for our topic here.

The good thing about these "styles" is that they are scriptable to some extent. Tinderbox has agents and rules that are little scripts. You can do the obvious: collect all notes that have a link type (and perhaps other attributes in a complex combination) and do something useful with them, perhaps gather them all in a clone (which Tinderbox calls an agent).

I'll bet that with a little reminder, Eastgate will give us the ability to have typed links that have assignable text attributes.

The screenshot shows the Tinderbox link type selector.
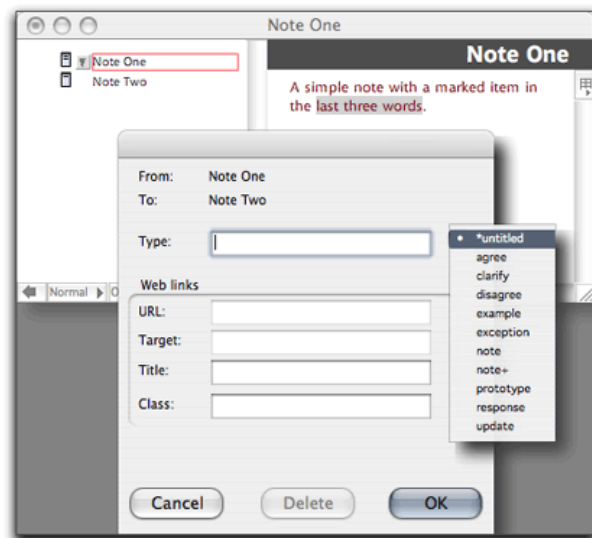
Tinderbox Link Type Selector

Stuff That Would Be Cool

Well, that's the rather dismal state of affairs in our power outliner community so far as style awareness and management. But then again, our computing platform is still young as are *all* these applications.

I believe the future in this regard is up to the intellectual marketplace. But we have something the Windows users don't, a vital competitive environment in that intellectual economy and a more sophisticated user base. My contribution is to suggest a few things you might consider demanding.

We need to have support for arbitrary styles in notes.

Styles should be nameable and inherit properties or attributes from previously applied styles, for

instance you might have an "emphasize" style that lightens and emboldens what was there. They should be overlappable so that multiple character styles can be applied to the same text block or overlapping text blocks.

Styles should have assignable appearances that are easily turned off or viewed independently. Some styles should be "invisible" or conditional text. Invisible means it is as though the marked text wasn't there unless made visible. Conditional means that the marked text only appears under certain conditions. This is often used in technical manuals, which cite commands that exist in different languages.

Many OS X applications already have language "styles" so you can mix different languages, even right-to-left and left-to-right languages, in the same paragraph. These should be integrated into the general style management system so that behaviors can be controlled under different conditions.

Styles must be visible to all the appropriate application services. This includes search of course, but could include indexing, bookmarking, linking, and gathering. Styles should also be visible to system services, for instance Spotlight. Scripts and Automator actions need to see, reason about, and change styles.

A standard specification of styles should be built into whatever XML standard the industry comes up with to complement the sparse OPML. Named styles should convey to common workflow targets like Word, InDesign, and Pages.

Styles should be typeable and capable of holding metadata. The typeable notion means that in addition to inheritance trees (like our embolden example), styles can have different behavior specified in the trees. An simple example might be a class of draft or editing styles that behave differently than "permanent" ones.

The metadata concept is a little different. Some common metadata for a style might be when it was applied and by whom, and in the case of multiple styles in what order. A more advanced notion concerns the class of tags a reader remarked on[15] in a comment to our last column concerning quantitative data analysis (QDA). QDA allows assigned and computed information to be added to text so that associated text can be linked in some way. QDA is one example of a larger class of techniques that analyze text, add information, possibly make inferences, and may alter the text as a result.

This is often done by maintaining a separate metadata file that points to locations in the target text. It is much, much better to attach the relevant metadata directly to the text block as an attribute or annotation of the style. Suppose, for instance, that we had a DEVONthink-like service that scanned a collection of text and assigned weights to text blocks based on desired affinities. Word already does this in a simple sense when it identifies and styles what it thinks are grammatical errors. Imagine if the DEVON-like service deposited this affinity data on top of the text blocks as it did different things. Suppose it wasn't a DEVON-like thing but something that actually teased out meaning and suggested a "gather" operation for collection of clones in a location.

For instance, "scan this document and collect linked copies of all the hate speech in an appendix."

Other types of metadata would be functions. Simple functions would be links of the type we have today and others that are not common, like transclusion or metaclusion, which we mentioned in an earlier column. Or it could be scripts or actions that would do something. An extremely simple action might be a date script. If a date in the note has this style *and* it is in a paragraph or cell with certain words that denote an event like a meeting *then* it triggers an alarm one hour before the time in the marked text.

Naturally there are a gazillion ideas clever people could come up with around this idea.

We need to have a relationship between layers and styles. I've already mentioned one simple style layer notion, the notion of several parallel texts on top of each other in several languages. When you want a tech manual with some text in French, only that layer is visible.

But layers can be enormously helpful in other ways. In program code, uses are obvious, but we focus here on writer's tools. Word has a layered style concept in its Track Changes feature. When I had layers, I used them for source notes layered on draft text, layered on rewritten text. Illustrators have had layers for years. They are natural for text editing if you have robust style support.

You might think it silly, but consider styles that control animated behavior in display.

Consider styles that convey selfish behavior on the text block so that it would use harvested metadata to better place itself in context to convey the idea it contains.

Think about the future. Think Different.

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[15] http://www.atpm.com/11.06/atpo.shtml#18072

The *ATPO* Tracker

NoteTaker[16]

If you haven't looked at NoteTaker recently, give it a revisit. It used to be the conventional wisdom that Circus Ponies NoteBook[17] was the one with the elegant interface, and its competitor NoteTaker was the clunky one, albeit with more features.

That's changed. NoteTaker has piled on even more features recently, some not available elsewhere. I suppose we'll have to have a detailed look at some of our power outliners soon, including NoteTaker.

Along the way of adding features, AquaMinds started using their own product to deliver some of their documentation. But what we'll mention here are two user interface–related items that appeared in recent updates: a good drag strategy and great links.

NoteTaker is a coherent collection of pages, each of which is a discrete outline. These are stacked one on top of another, so that if you are viewing one you can't see another. A strategy of stacking has lots of advantages, which include several types of integration across outlines. But it is annoying not to use "the Mac way" to distribute pages and views all over the place. So the question is how to handle problems like navigation and dragging from one outline to another.

NoteTaker and NoteBook use the metaphor of tabs for pages and sections. These are optional and tailorable. Clicking on one takes you to that page or section divider (which contains a table of contents for that section). Now NoteTaker tabs are spring-loaded; drag a selection to a tab, hover a bit, and it opens that page. Then you can continue your drag to wherever you wish.

Along the way, you are dragging a small image of the dragged material. Very nice. The screenshot shows a three-level structure grabbed from a page in Section 1. Our target page in Section 3 didn't have its own tab, so we dragged to the Section 3 divider. It popped up the contents page, which you see in the shot. We'll then continue the drag to the "Page 3–2" entry which will pop up that page. We'll then drop the structure wherever we want on that page. One motion to target.
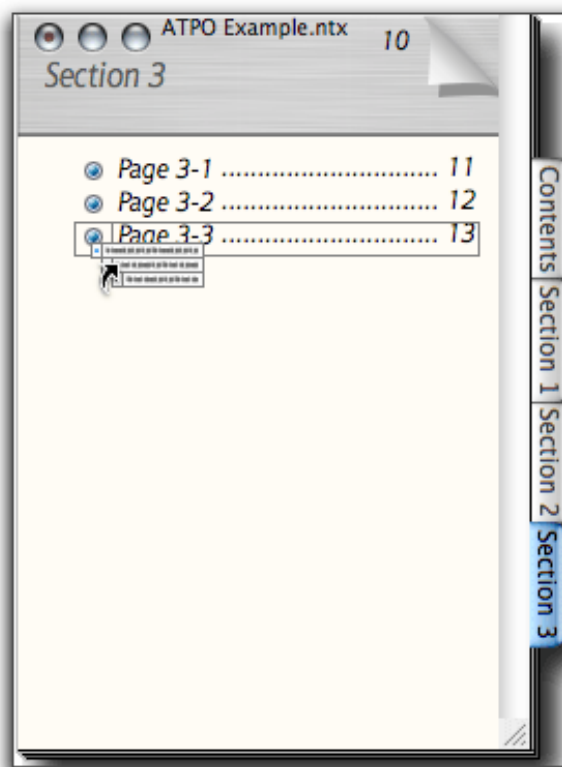
NoteTaker Drag

Regular readers may recall my account[18] of a legacy outliner called Palimpsest. It was a wonderful program with links that were even better than Tinderbox's in some ways. You could specify a link with a trackable named type, make it two-way or make it a sort of halfway where it pops up an annotation window, rather like a note.

Tinderbox supports the first. NoteTaker now supports the latter two. An annotation can be a text note or a spoken recording. All annotations are collected in a special section, so you could consider them hyperlinked endnotes if you wish.

A link can trigger a URL or an AppleScript, or you can link to an entry in Apple's Address Book.

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[16]http://www.aquaminds.com/
[17]http://www.circusponies.com

[18]http://www.atpm.com/10.03/atpo.shtml
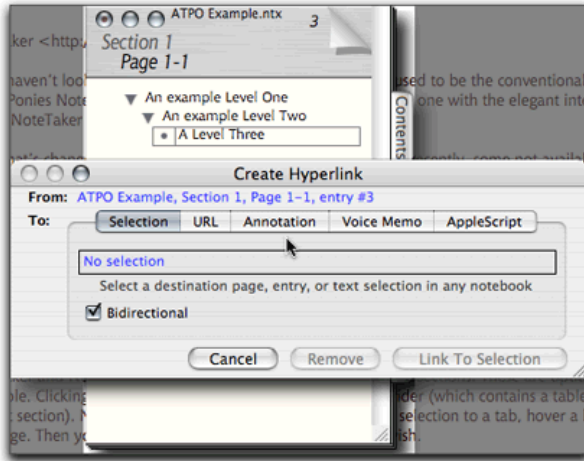
NoteTaker Links

This is well thought out, and all these disparate linking functions are handled consistently. You can't *create* a link by dragging as in Tinderbox, but it is a job well done nonetheless.

DEVONthink Pro[19]

After what seems like a two-year delay, DEVONtechnologies released their DEVONthink Pro version. Almost. The current version is in beta as I write this, but it seems extremely stable.

ATPO has always included DEVONthink in its list of power outliners, but that's not because it is a particularly good outliner. It is a knowledgebase—to outlining as Tiger's Spotlight technology is to the Finder. Spotlight has a lot of buzz at the moment, so the appearance of DEVONthink Pro gives an opportunity to reflect on search technology in information managers.

First a description. DEVONthink now has three versions with possibly a fourth to come. They all have the same design. At the core is a document database. I don't know the proprietary technology they use, but it handles huge databases well. Onto that are grafted three services—that's my term.

The first is an import and indexing service. This is still the most capable of any of our *ATPO* power outliners in terms of the number of document types it handles. Also, you can initiate the importing or pasting by an impressive variety of ways. It indexes PDFs that have text layers (which nearly all do). Excel and some QuickTime formats don't work yet.

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[19]http://www.devon-technologies.com/products/devonthink/overview.php

The second service is why the thing exists: a combination of associative search technologies using techniques loosely called "artificial intelligence." This also sets the thing apart from other commercial programs available to the Mac. It appears to index by word and build "fuzzy sets" from combinations of words. That means that when you search by a couple words, you'll get the documents that have those words, as you would with Google and Spotlight. But if you open a document and click the See Also button, something unique happens. DEVON takes all the patterns in the current document and looks for matches in every document in the database. Then it produces a ranked list of all the documents with similar word patterns. Alternatively, you could have clicked a Suggest button and it would have given a ranked listing of all the "groups" to which you might assign the document. This is cool stuff, and the bigger the database and the messier, the better this fuzzy search works.

That notion of "group" brings us to the third service that is bolted on. It's an outliner. Groups are what *ATPO* calls "headers," but in this case the outline view shows them as folders because they can only contain.

The screenshot shows an experiment with a very technical database. The See Also ranking is in the drawer on the right. The outline of groups is on the left.
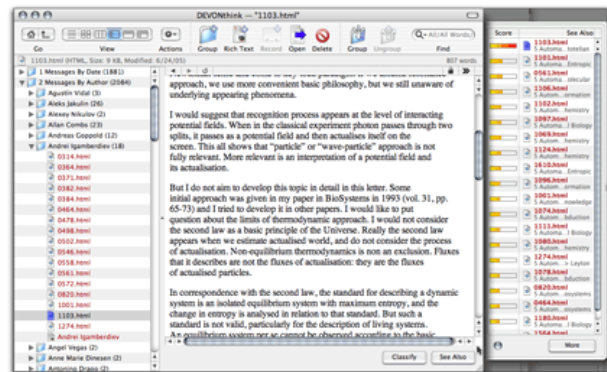
DEVONthink Pro

This outliner "service" was the last of the three to appear. It is pretty mature in some ways. It necessarily supports clones, since a document can be in many groups. These are true clones in the sense that they are equal pointers to the same document; eliminating any one pointer doesn't disturb the other. That's in contrast to the Finder where a document seems to

be in only one "place," and has pointers as aliases spread around. Killing the original leaves the aliases pointing to dead air.

DEVON supports links from text blocks to documents and groups within the database, "wiki" type links where any phrase links to a group with that phrase as its name, and links to files and URLs. This latest version adds a lot of niceties; the most important to *ATPO* are AppleScriptability and the ability to export.

DEVONthink in the past has been easy to get stuff into and work with, but hell to get structured document groups out. That contrasted it to [Tinderbox](http://www.eastgate.com/Tinderbox/)[20], in which it is easy to build structure and get things out, but difficult to get things in.

Now you can export DEVONthink files to HTML, OPML, and OmniOutliner. Good deal.

Now to the controversy. Many *ATPO* readers use outlines as a part of a workflow or reference resource. The idea is that over time you may add stuff, but you are also modifying what you have and restructuring it to make it better. This is the use that the collected conventions of outlining support the best.

The Finder is an outliner—has been for the longest time. That's how most of us use it and why most Finder-related tools evolved as they have. With iTunes, Apple made smart folders a key element of what has become an interface standard. (Smart folders have been a part of the Unix world for twenty years, and Microsoft, IBM, Taligent, and Apple toyed with them long ago. Only recently has Apple added them as a mainstream addition to the Finder outlining paradigm.) Tinderbox is entirely consonant with this notion that when you add structure, it matters.

Spotlight at the moment is a potential disaster both functionally and in terms of what it implies when the usually insightful Steve Jobs says the Finder could be replaced. The idea, I suppose, is that the structure will appear only when you want it and then in as much detail as you want. Why sort your laundry if a robot will hand you a red sock when you need it?

Because it doesn't work, that's why. There's more to documents than looking for words; you need to look for meaning. For a search engine to work well, it would need to know what a document says or infers, or denies. And—more importantly—it would need to know what *you* need, even if you can't express it or logically work it out.

DEVONthink's value for me is that it has a tremendous tool to suggest structure by its fuzzy associations that I can then use to build groups. The trick is, then, how do I take advantage of that new structure I've added?

And this is where I think DEVONthink has a long way to go. It won't tell me what its search algorithms are or how they are weighted. I'm someone—admittedly an atypical user—who could understand that and wish to tinker with the settings. In fact, I believe that the settings could be exposed in such a way that many users would understand the controls.

Since I can't understand nor control how it associates, I will always mistrust it. And I'll want to build or purchase my own modules. I'm pretty sure DEVONthink is set up do this; DEVON has a new investor that does intelligence work who will likely be adding its own modules, almost certainly based on n-grams.

(About n-grams: Since you're not actually indexing the meaning of words, why bother to index the whole word? After all, there are vastly fewer combinations of two or three letters than there are whole words in all languages. As it turns out, you can get just as good patterns with these as with whole words, but with vastly fewer resources, and allowing incredibly more efficient pattern matching techniques. The spy guys like this because they could be dealing with tens of millions of unindexed items at a whack.)

Incidentally, DEVONthink's likely competitor will be a company backed by [In-Q-Tel](http://www.inqtel.com)[21] (the CIA-linked venture capital fund) that claims not only to index words but also the "meaning" of them. (Disclaimer: I was on the panel that helped set up In-Q-Tel and am an outspoken critic of how it turned out.) Whatever they can actually do, I guarantee it is less than the hype.

Back to my heartburn with DEVONthink. After I add structure by links and gathering things in groups, I want the search engine to heavily weight that new structure. DEVON says it does, but my experiments show otherwise.

Worse, I can't export all the structure, which means I can't use it in my workflow. If I select OPML or OmniOutliner export, I can export the nesting structure I've built, but all links are lost. If I select HTML export, all the links are there but not the tediously performed grouping!

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[21] http://www.inqtel.com

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[20] http://www.eastgate.com/Tinderbox/

DEVONthink is way ahead of Spotlight, which I find totally useless. It is clearly the best we have so far, but it still has a way to go.

[Tinderbox](#)[22]

Tinderbox is now at version 2.5. The latest version, as always, has a long list of new stuff which you can review on the site. Three features are worth mentioning in the tracker context.

The first is trivial in a way but makes me feel warm. *ATPO* may have been influential in getting Eastgate to change their System 7–style disclosure triangles to modern, antialiased ones. Who says we haven't got clout?
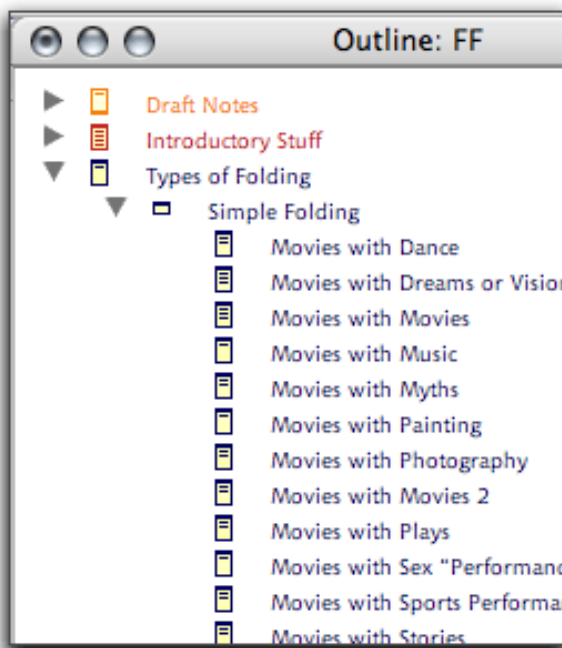
Tinderbox Arrows

More directly useful is what they did to header styles in the last upgrade a couple of months back. As we mentioned above, they now have header styles that are individually controllable, manually or by a script.

They introduced "rules" last time around. They've always had these in association with what they call "agents." Agents find notes according to criteria you specify, collect them in new outline entries, and additionally transform the notes according

to a wide variety of possibilities. Rules allow such transformations without the necessity of collecting.

Rules have turned out to be popular, but it slows things down to have hundreds of scripts constantly working on perhaps tens of thousands of entities. Now you can set a priority so that some of these scripts trigger less frequently. Makes all the difference.

What else? Tinderbox now imports OPML! This is good for the obvious reason: now you can get stuff into it from your other tools, for instance [NovaMind](#)[23]. But as we mentioned before in [our XML column](#)[24], OPML doesn't transmit all the structure from any of our power outliners.

I think this puts Tinderbox on a path to being able to leverage what Dave Winer is now [cooking up with OPML](#)[25]. He has something called Instant Outlining, which is something like an entry-level "transclusion," which we've described before. Transclusion is a simple notion that a part of a document can consist of content imported live from another document to which it is hot-linked.

If instant outlining works as described, the master document will be a Web-published outline where the content is from many different sources. New sources can start at any level and interpolate content between existing children. We'll see. Half of his stuff becomes important parts of the landscape, both as tools and impediments to doing things more powerfully, depending on your notions of what's possible.

Copyright © 2005 Ted Goranson, tgoranson@atpm.com. Ted Goranson is an older guy living in Virginia Beach. He is a writer and consultant always open to and currently looking for opportunities.

[22]http://www.eastgate.com/Tinderbox/

[23]http://www.nova-mind.com/

[24]http://www.atpm.com/11.04/atpo.shtml

[25]http://webservices.xml.com/lpt/a/ws/2002/04/01/outlining.html

Of Fields, Calculations, and Other Things

In last month's article, we provided a quick introduction to FileMaker Pro 7 by creating a simple relational database to track serial numbers. As the article proved fairly popular given the feedback received from readers, we're going to make this FileMaker tutorial into a regular feature. This month, we'll continue to work with our SerialNumbers.fp7[1] file, augmenting its capabilities a little bit at a time. If you didn't read last month's article[2], I would highly recommend that you do so before continuing, as I will assume that you know how to do what was covered there.

Field Types

One item you may have noticed last month is that all of the fields we used were text fields. That is, they stored textual information. FileMaker provides other types of fields when you wish to store other types of information. If you'll take a look below, you'll see that the field types include Text, Number, Date, Time, Timestamp, Container, Calculation, and Summary.

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[1] http://www.atpm.com/11.08/SerialNumbers.fp7
[2] http://www.atpm.com/11.07/filemaking.shtml
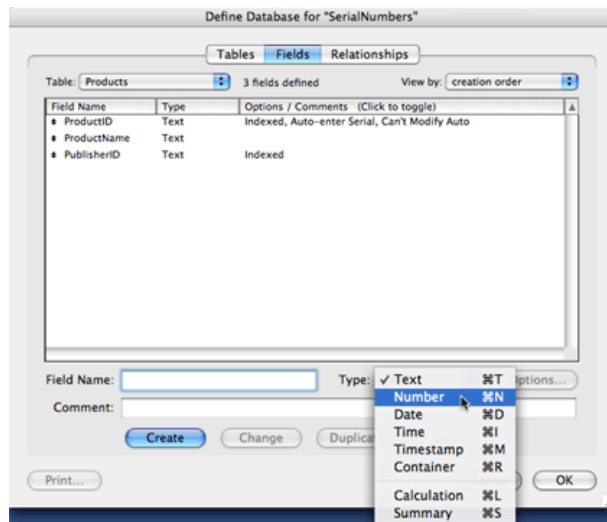
The first four are probably self explanatory. Text will store any text, up to 2 GB of data (a massive upgrade from the 64K that could be stored in FileMaker 6), allowing you to store pretty much any kind of text information you can conceive. Number fields store, um, numbers. Unlike many programming languages, FileMaker doesn't differentiate between integers and reals. Both of them are simply numbers.

Date fields can store any date between 1/1/0001 and 12/31/3000. Dates are stored as numbers internally, which means that the range of values is 1 to 1,095,727 (December 31, 3000 is the 1,095,727th day when counting from January 1, 0001 with the Gregorian calendar). Since dates are just numbers, you can use addition and subtraction on date fields to alter them. For instance, you can add 7 to a date field to get the date one week from the original.

Time fields work similarly, storing the number of seconds since midnight, and therefore have a range of 0 (for midnight itself) to 86399 (for one second before midnight). For instance, I'm writing this at 11:45:53 AM, which FileMaker would store internally as 42,353 because there have been 42,353 seconds since midnight. Time fields can have fractional portions up to six decimal places, allowing you to track fractions of a second to the nearest millionth.

Timestamps are a combination of a date and a time, and are stored internally as the number of seconds since January 1, 0001, giving a range between 1 and 94,670,812,799. The above time (11:45:53 AM) for today (July 25, 2005) is stored internally as 63,257,888,753.

Container fields are generic holders for all kinds of binary data. You can store pictures, movies, or files of any type in a Container field, allowing you to create a database of images, videos, or files associated with a project that is tracked in FileMaker. Container field contents are limited to 2 GB in size, which should be sufficient for all but the largest video files.

Calculation fields are those that take existing data, perform a calculation, and return a result of any of the above types. For instance, using our Date field example above, we could have a date field called InvoiceDate. We could then create a calculation

field with a date result called `DueDate` where the calculation is `InvoiceDate + 30` and `DueDate` would provide the date that is 30 days after the date in `InvoiceDate`. FileMaker 7 provides a rich library of functions to apply to field data, and although we will create a Calculation field today, we'll cover Calculation fields in much greater detail in a future article.

Calculation fields are limited in that they can only reference data within the current record or records related to the current record. What if you have a database of invoices and want to know the total of all of the invoice records? A Calculation field won't do the job for you because it can only reference data within a single record, but a Summary field can reference data across records, allowing you to create a field for a report that will calculate the total of values in a field across records. Like Calculation fields, Summary fields are a complex topic, and we'll cover them more fully in a future article.

Field Options

In addition to giving a field a name and a type, you can provide other information to increase the integrity of your database system. For instance, last month we saw how you can have FileMaker automatically enter an auto-incrementing serial number. In addition to this and other auto-enter options, you can have a field validated to have only certain kinds of values. We'll see this in practice in a few moments.

You can also specify options for how the field is stored. Your first option is to store a field as a Global field. A Global field has the same value regardless of which record in the table is being viewed. Global fields are often used as variables within scripts and as holders of interface elements. For instance, if you have a script (a small program that performs a series of automatic steps) and need to take information from one record to another record, you could store that information temporarily in a global field.

A field can also have repetitions. For the most part, this is a hold-over from the days when File-Maker wasn't relational, but it can still be useful when storing interface graphics for a system, which is pretty much the only time I use repeating fields.

Finally, you can specify how a field is indexed. FileMaker can create an index of a field's contents for faster searching, using the index to find records that match search criteria rather than manually searching every record. Indexes are also needed for fields that are used in relationships. Usually, you don't need to

manually set the index options, although you can if you know that a field will be searched by users or will be used as a match field in a relationship. The reason you don't usually need to set the indexing options manually is that FileMaker will index a field (if it can) as soon as you perform an operation that needs to have the field indexed. For instance, if you look at the field options for any of the foreign key fields (such as the ProductID field in the SerialNumbers table), you'll see that FileMaker has turned indexing on for you because for such a relationship to work properly, the field needs to be indexed. A similar automatic indexing will occur if you perform a find on a field.

Set a Preference

Before we take all this theory and apply it, there's a preference you will need to set if your experience with FileMaker is to be exactly like what I describe. FileMaker, by default, adds new fields to the current layout when they are created. Many of the fields I add to a system are "background" fields, fields that my users never see. Also, my layouts are usually very complex, and newly added fields often mess up the layout I have, requiring that I not only remove the field from the layout, but also edit the layout so that it returns to the look I want for it. I don't like this behavior, and one of the first things I do when I install FileMaker is turn this preference off.

Choose FileMaker ▷ Preferences from the menu bar or type Command-Comma and click on the Layout tab. Uncheck the checkbox labeled "Add newly defined fields to current layout." You may also want to check the checkbox for "Save layout changes automatically (do not ask)" if you haven't already set this preference when the software originally asked you during the last tutorial.

Adding Fields

Now that our theory is behind us (for the moment) and we've set our preference, we can add a couple of non-Text fields to our database. Choose File ▷ Define ▷ Database from the menu bar or press Shift-Command-D. Click on the Fields tab if it isn't already selected and choose SerialNumbers from the Table menu in the top left of the window.

Some software can be licensed for multiple users with a single serial number, such as Mac OS X Server, which can be purchased with either a 10-user or unlimited license. We're going to add a field to the SerialNumbers table that specifies how many users the license is for. Enter "LicensedUsers" as the name of

our new field in the "Field Name" field in the "Define Database" dialog. Choose Number from the Type pop-up menu (or press Command-N) and click Create.
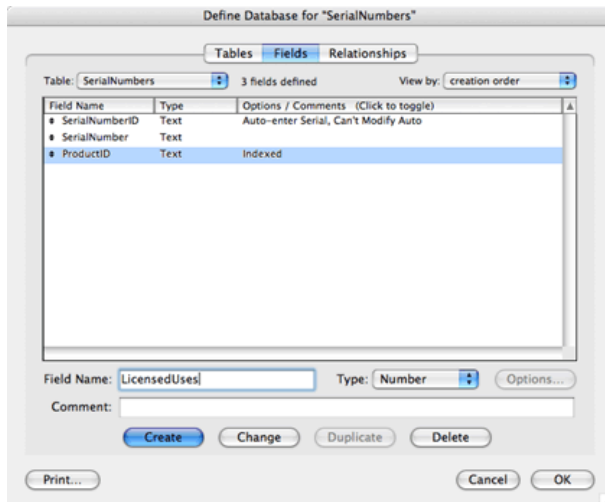
Now we want to set some field options for our new field. Click on the Options button, or, if you're a keyboard junkie like me, and like to keep your hands off the mouse as much as you can, press Shift-Tab (to move from the "Field Name" field to the field list) and press the space bar. Pressing the space bar while a field is selected in the field list and the field list has focus (as indicated by a blue outline around the field list) will also bring up the Options dialog box.

Most licenses are for a single user, so we'll set this field to auto-enter 1. Click the Auto-Enter tab of the Options dialog box and click the checkbox for Data, entering a 1 into the field enabled after you do so.
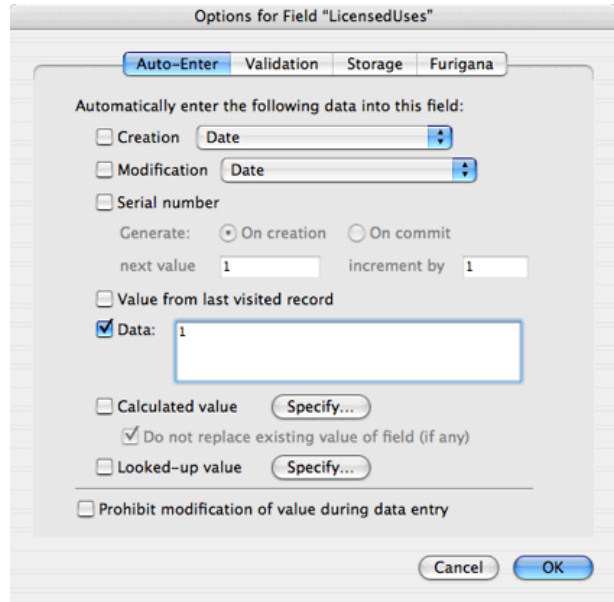
As far as I can think, a license should always be for at least one user, so we'll validate our field to make sure that it always has a value of at least 1. Also, a license should be for a whole number of users or "Unlimited." Text information can be stored in number fields, but is generally ignored, so allowing the user to enter "Unlimited" into our `LicensedUsers` field is perfectly fine. Click on the Validation tab and click the checkbox for "Validated by calculation." As soon as you do, a "Specify Calculation" dialog box will appear. For now, just enter the following calculation in the large text field near the bottom of the window:

```
( ( LicensedUsers ≥ 1 ) and
  ( Int( LicensedUsers ) = LicensedUsers ) )
    or
( LicensedUsers = "Unlimited" )
```

FileMaker doesn't care how you use spaces and carriage returns in your calculations, so the above could have been entered as:

```
((LicensedUsers≥1) and (Int(LicensedUsers)=
LicensedUsers)) or (LicensedUsers="Unlimited")
```

However, using spaces and carriage returns in your calculations will make them much easier for you to read later, so I highly recommend that you format your calculations as I have above. You'll thank me later when you have to return to a calculation to edit it.

The "greater than or equal to" symbol can be inserted either by double-clicking it in the list of operators or by typing Option-Period. This calculation

says that the `LicensedUsers` field must be at least 1 and be an integer, or must contain the word "Unlimited." If either of these conditions is true, the field is validated, and if both are false, it is not. Click OK to save your calculation.
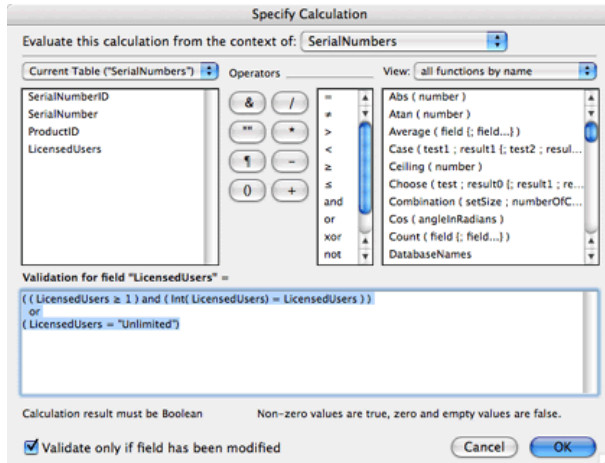
When implementing field validation, you can allow the user to override the validation (the default) or make it "strict," requiring that the field satisfy the validation before accepting the input from the user. We will make this "strict," so uncheck the checkbox for "Allow user to override during data entry." Also, field contents can be set by the user or by scripts and imports, and you can specify when to validate. The default is to validate only during user data entry, but if you wanted validation to always occur, you would click the Always radio button under the "Validate data in this field" label.

If validation fails, FileMaker will present the user with a default message, but the default message isn't very useful as it doesn't tell the user how to ensure that the validation succeeds, only that it failed. We will provide more information by clicking the checkbox for "Display custom message if validation fails" and entering "You must enter a positive integer or 'Unlimited' for the number of licensed users." into the field below it. You're finished with the field options, so click the OK button to get back to the "Define Database" dialog.
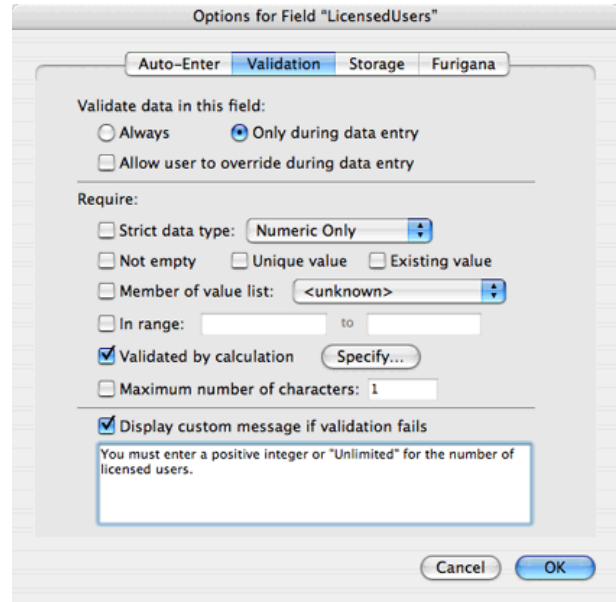
Some licenses have expiration dates, so we'll add a Date field to store that information. Type "ExpirationDate" into the "Field Name" and either choose Date from the Type pop-up menu or type Command-D, and either click Create or press the Enter key. Date fields are automatically validated to be dates, so we don't need any auto-enter options (the field will most likely be empty) and we don't need any validation (FileMaker will already validate that it is a proper date).

However, it might be useful to know how many days before the license expires, so we'll add another field to calculate this. Enter "LicensedDaysLeft" and choose Calculation from the Type pop-up menu or press Command-L. As soon as you either click Create or press the Enter key, a "Specify Calculation" dialog box will appear. Enter the following calculation in the large text field near the bottom of the window:

`ExpirationDate - Get(CurrentDate)`

You may notice that the checkbox "Don't evaluate if all referenced fields are empty" is checked by default, which in this case is good, as we don't need to perform the calculation if the `ExpirationDate` field is empty. You'll also notice that the default result type is Number, which in this case, even though we're working with a Date field, is correct, as we're subtracting one date from another to get the difference between the two.
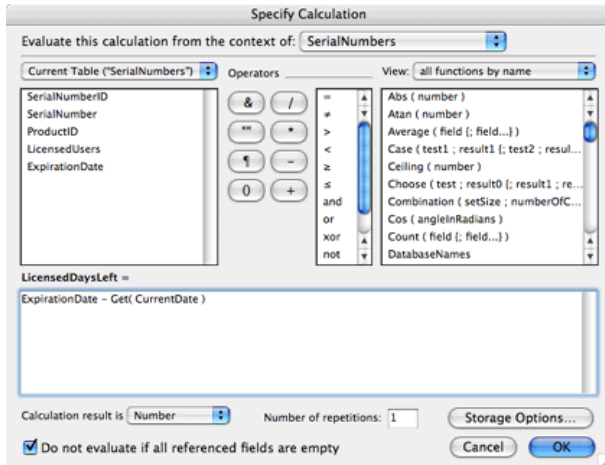
`Get(CurrentDate)` is a built-in function in File-Maker that will return, of all things, the current date. However, unless we specify otherwise, this calculation will only evaluate when it is created or when data upon which the calculation is based (i.e., the contents of the `ExpirationDate` field) change. We would like this instead to always show the correct value, so that if we view the record in a week, we'll see how many days are left from then rather than when the record was created. To do this, we need to specify the Calculation field as "Unstored." Click the "Storage Options" button near the bottom right of the window and click the checkbox for "Do not store calculation results—recalculate when needed" and then click OK. You'll notice that when you specify a calculation to be unstored, you can no longer index it, which makes sense; the calculation isn't being stored in the database file, so there's nothing to index. Rather, it's recalculated whenever it's being viewed on the screen.
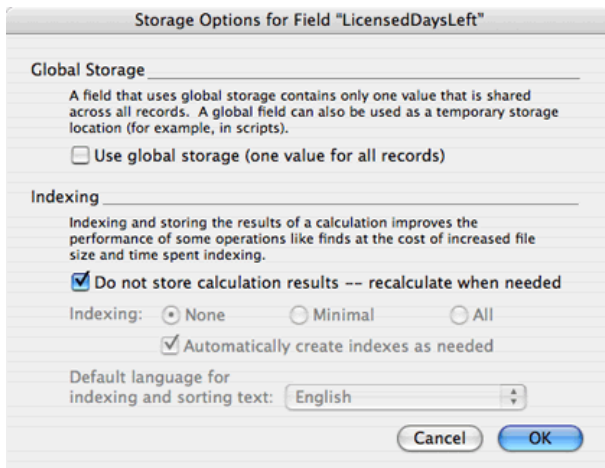
Click OK again to return to the "Define Database" and OK again to exit it.
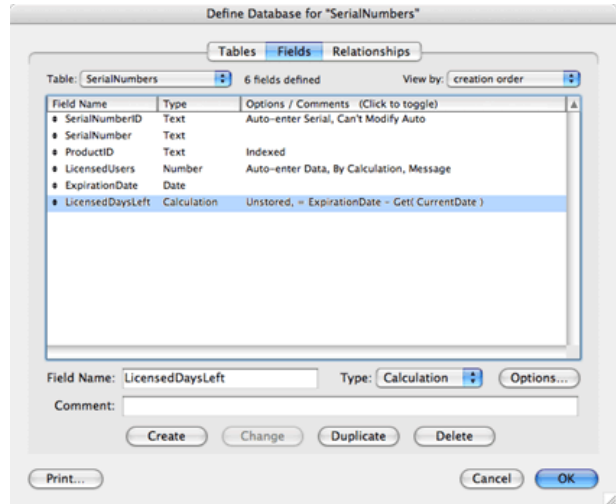
Add your new fields to the SerialNumbers layout and try entering some data. Enter a number with a fraction into the `LicensedUsers` field and see if you get the validation failure dialog box. Enter a date into the `ExpirationDate` field and make sure the `LicensedDaysLeft` field calculate correctly. Add some new records and double-check that a 1 is entered automatically for the `LicensedUsers` field.

That's it for this month. As always, please feel free to send me a message with questions or comments (or expressions of extreme gratitude). Thanks for joining me, and I'll see you next month.

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[3] http://www.chivalrysoftware.com

software and publisher of _Function Helper_[4], a FileMaker calculation debugging tool. He was a contributing writer and the technical editor for _The Book of FileMaker 6_[5] and has contributed to _ISO FileMaker Magazine_[6] and _Macworld_[7] in addition to his _series on AppleScript_[8] for ATPM.

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[4] http://www.chivalrysoftware.com/home/functionhelper.php

[5] http://www.nostarch.com/frameset.php?startat=filemaker

[6] http://www.filemakermagazine.com

[7] http://www.macworld.com

[8] http://www.atpm.com/Back/roll.shtml

Is Your Memory Failing?

As most of you know last August or September I purchased a new G5 to replace the Blue-and-White G3 that had come to be known as FrankenMac[1]. For the first time in my Mac computing life I would own a Mac while it was still one of the current machines. This was going to be sweet.

For the first few weeks everything was fine. The machine was everything I had hoped it would be. The only danger was that while sitting slack-jawed in front of this new speed demon I might drool on the keyboard and short something out. Then the trouble started.

Trouble in Paradise

The first sign of trouble came while trying to create a DVD using iDVD 4. I could create very short DVDs, but longer ones would cause iDVD to crash during the encoding process. Sometimes the crash would occur immediately after starting to create the menus. Usually iDVD was the only application affected, but sometimes I would see the dreaded kernel panic screen. You know, the black-and-white text screen that tells you, in several different languages, to restart the computer. Other applications that I use every day, such as Safari and Microsoft Word, were performing quite well. Photoshop was also working well, although I hadn't tried anything that would really push it.

At this point I was starting to doubt my Mac knowledge. Maybe a dual 2 GHz Mac with 1.5 GB of memory just wasn't enough machine to work well with about 70 minutes of video? That's when the second symptom started to occur. Booting the system from scratch took four or five attempts, with each of the failures greeted by a kernel panic. Once the system finally started, everything went wonderfully as long as I didn't try to run iDVD or Final Cut Express. Something was wrong and the boot-up problems were starting to convince me it might be hardware-related, since the kernel panics were occurring before any software had time to load.

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[1]http://www.atpm.com/9.08/howto.shtml

Identifying the Culprit

I knew from reading posts in numerous forums that kernel panics are often the result of some hardware problem. Time to do a little troubleshooting. Without going into a lot of detail here, since that's not the point of this article, the boot problems were apparently due to a loose card inside the computer. Once that was resolved I could get back to editing video right? Wrong. Problems with iDVD and Final Cut Express persisted.

After putting my project aside for a while, I stumbled on a potential answer one day. In one of the Mac forums I ran into someone who was doing a similar project on a Mac with less memory. Several messages later, he and I concluded that perhaps I had some bad memory chips. Time for more testing.

Trial and Error

If you suspect that your problems are due to bad memory, there are several methods available for testing. One common method is to remove a chip or two, boot the system, and attempt to duplicate the problem. Presumably if the problem persists then the bad RAM is still in the system. If the problem is gone, then the bad RAM is among the chips that have been removed. You are essentially using repeated trials and the process of elimination to help solve the mystery.

You would think that this method would appeal to someone like me. Not so. I have a few problems with this method. First, it is very time consuming and requires a great deal of your attention since it may be necessary to take the system apart several times. Second, you must know how to safely remove components from your Mac. Finally, it requires more knowledge about your Mac than some users want to know. Some Macs have RAM slots that are difficult for users to access while others, like my G5, require that RAM be installed in pairs. Finally, you might actually damage a good chip if it is not carefully removed and replaced.

Users who have only a little more than the minimum amount of RAM required for OS X may face an additional problem using this method. Removing

RAM, even if your Mac permits removing one chip at a time, may leave you without enough memory to boot the machine.

Software-Based Testing

If you are uncomfortable taking your machine apart several times, there is another option: software-based memory tests. Testing memory using software is not infallible; it's almost impossible to test every state of memory. Although it's not perfect, software-based memory testing is a useful tool.

If your computer shipped with an Apple Hardware Test CD, that's a good place to start. If a bad chip is identified, it can also pinpoint the slot that chip currently occupies. I didn't have access to that disc during testing, but it can be a useful tool.

One of the first software tests that I tried was Tech Tool Pro 4[2]. I decided to let it run all of the tests simply to check the overall health of my system. I expected it to find memory errors, but none were found. Normally that would be great news but the application crashes and occasional kernel panics were still occurring while working with large files.

Rember to the Rescue

Searching the Net I came across a tool called Rember[3]. The program essentially provides a graphic user interface to a command-line memory testing tool called memtest. Upon launching Rember, the user is faced with the main Rember tab. From here you can control whether Rember tests all or part of the memory you have installed. You can also control the number of times the test is repeated. Although it is a good idea to run these tests several times, keep in mind that this can be a time-consuming process.

The right side of the main tab also presents you with an option to "Quit all applications." Checking that option also lets you choose an option to quit the Finder. During testing I usually choose both of these options. Doing so frees up more memory for testing. The second tab, called Logs lets you see the results of testing. In my case, Rember began identifying errors almost as soon as the test started.

I also used memtest[4] directly. memtest is the same core code that Rember uses. The principal difference is that memtest is a command-line utility that can be run in single-user mode. This allows it to test areas of memory that would normally be occupied by

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[2]http://www.micromat.com/tt_pro_4/tt_pro_4.html
[3]http://www.kelleycomputing.net:16080/rember/
[4]http://www.memtestosx.org/index.php?option=com_content&task=view&id=11&Itemid=42

OS X. Even if you are unfamiliar with the command line, this might be a good choice. The directions included with this program are fairly easy to follow.

Installation is of memtest is easy, since it is installed using a standard OS X installer package. Once the program is installed, it can be run by completing the following steps:

1. Boot the system in single-user mode by holding down Command-S as the system boots. Once you see text scrolling by, it's safe to let go.

2. Now you can run memtest by typing:

```
/Applications/memtest/memtest all 3 -l
```

In this command, the text before the word `all` is the path to memtest. If you have not installed it in the default location, you will need to enter a different path. The word `all` tells the program to test all available memory. The number indicates how many times the test is to be run, and the `-l` tells memtest to place the results of testing in a log file. That file will be located in the same folder as memtest.

If you try to test all available memory and test results do not start appearing on the screen almost immediately, there may be a problem. Under some circumstances, Darwin does not appear to like the `all` part of the command. In that case, repeat the startup procedure replacing `all` with a specific amount of memory to test. In essence you are replacing `all` the the number of megabytes of memory to test. Although I can't give you a definitive number for the upper limit the documentation suggests entering a value that is two or three percent less than your total memory.

The output from Rember and memtest will report the results of testing, as well as the memory address of any errors. The addresses are reported in hexadecimal notation. I'm not very good at converting these number to specific chips, but at least I know there is likely to be a problem. I'm going to start by pulling the pair of chips that were installed as an upgrade.

Now What

I expected Rember and memtest to yield the same results and have the same problems testing all memory because they are essentially the same test engine. Having said that, I am left with a puzzle. These two programs are reporting memory errors and Tech Tool 4 is not reporting errors. Which one is right?

I like Tech Tool Pro 4, but in this case I think there may be some memory errors creeping into my system. If my system were performing memory-intensive tasks better, I would think maybe Tech Tool was right. I guess it's time to start shopping for memory.

John Hart, ModYourMac.com

The last few years have seen personalization of computers go to new and amazing levels, from custom case modification to stickers, to colored Apple logos. John Hart of [Muppet Labs](1) is on the cutting edge of the Mac modding scene, repainting laptops and desktops, adding custom equipment, refinishing the entire machine from top to bottom. ATPM caught up with John recently to talk about his influences inside the Mac community and the modding community.

[The Green Monster G3](a)

[a] http://www.modyourmac.com/photogallery/22/files/22-1001-full.html

ATPM: How did you get your start modding the Mac?

John Hart: One could say I kind of fell into modding. The movie [Hackers](2) gave me the bright idea to paint my computer, and that was over ten years ago. Since then, I've always customized my machines. Over time, the desire to produce better work led me into more complex pursuits.

ATPM: What mods have you done to your own computers? What's your best innovation so far?

Hart: In regard to my own computers, I've spray-painted them, installed window kits, neon tubes, put guts in replacement cases, and done a myriad number of custom paint jobs.

ATPM: Who's been your best inspiration so far?

Hart: I wouldn't say who, but rather "what." The what would be custom cars. California's low rider and hot rod culture has always been a big influence. Within that culture, people like Von Dutch, Craig Fraser, and Ed "Big Daddy" Roth, just to name a few.

ATPM: Talk to me a bit about how the car culture is flowing into the computer culture, creating a crossover between Monster Garage and the Mac Development labs. It's a big change for the computer industry, to say the least.

Hart: Well, at the most basic, it seems in my opinion, that street racing and computers have influenced each other. Its entirely possible it happened without either culture realizing it. In both arenas, you see lots of customization, neon, and flash. It doesn't necessarily make the car or computer faster, but it's a level of personalization that lets the owner take his possession to the next step. For me, it was more an outgrowth of my art education, and my love of car art. I've always loved flames, and intricate pinstripes, two-tone body work, and all of the flash associated. More than anything, the old school look of stuff a la [American Graffiti](3). So, when painting computers, I tend towards that style. My belief is that if a car can look that cool, so can a computer. I think that anything that covers customization is going to blend a little. Just so long as people remain creative, we'll see lots of interesting ideas.

ATPM: Where do your best modding ideas come from?

Hart: It'll sound funny, but the best ones are the ones that come to me in the shower. I'm standing there committing hygiene, and things just pop into my head. Hardware stores are also great for strange ideas.

ATPM: Give me a brief biographical sketch of your Mac life.

Hart: My Mac life began, technically, when my mother purchased one of the original Macintosh's. I

[1] http://www.modyourmac.com
[2] http://www.imdb.com/title/tt0113243/

[3] http://www.imdb.com/title/tt0069704/

was awed by the thing, and was drawn to it. Not long after, I was gifted with an Apple //e. This was followed by a string of Performas and other PowerPC machines, leading up to my current collection of G4s and such.

Professionally, I've never been anywhere else. I'd never owned a PC until last year (still don't really use it for much). Since high school, I was a print and art geek, so college was spent studying graphic design, while doing vigilante Mac repair on the side. When the opportunity presented itself, I took the leap and got into being a Mac Tech on a professional level. I spent several years in a shop in Richmond, VA, and now work out of a shop in Bethesda, MD.

ATPM: What are you most proud of, mod-wise?

Hart: Honestly, I'm proud of them all. They are all examples of something I wanted to try. But, if I had to pick two, I'd have to say that my Tiki Mac project, and the Hello Kitty iMac are two of my favorites.

Tiki Mac[a]

[a]http://www.modyourmac.com/photogallery/18/files/18-1127-full.html

ATPM: If you had an unlimited budget for a mod, what would you do?

Hart: An unlimited budget would afford me some pretty good options. In the D-I-Y category, pulling together my Fish Tank Mac Mini would totally happen. In terms of having things fabricated, I'd be going to metal shops and would have cases custom cut, and then either anodized, or powder coated. Custom neon would also be an option, since paying to have tubes made wouldn't be a problem.

Hello Kitty iMac[a]

[a]http://www.modyourmac.com/photogallery/6/files/6-1003-full.html

ATPM: What's a basic mod consist of for you? What kinds of mods are easy for people to do themselves, in their spare time, and what kind of things do people have to "send out" for, so to speak?

Hart: I consider a basic mod to be anything that changes a machine from stock. It could be as simple as putting color behind an Apple logo. Obviously, I don't consider covering a machine in stickers to be modding, but the definition is open to debate. Where my work is concerned, my mods are usually entire case paint jobs, which is more work than most people would consider basic.

Deciding on what would be be easy for most people is a bit of a gray area, because some people have different skill sets, and I hate to over-generalize. But, if I had to say, installing neon tubes into towers is pretty basic, spray-painting isn't hard, but takes a little practice, and even putting color behind your iBook's Apple logo isn't hard, assuming you aren't afraid to take your machine apart.

Dragon iMac[a]

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[a]http://www.modyourmac.com/photogallery/5/files/5-1
004-full.html

If I were going to recommend something to be
"sent-out" for, I'd have to say that things like case
cutting, highly detailed painting, hardware modifica-
tion to parts other than the case, riveting, anodizing,
and powder coating would be good examples. My
rule of thumb is that if you aren't comfortable do-
ing it yourself, talk to people who have experience.
They may be able to help you. Of course, if you're
fearless, or in my case, willing to throw caution to
the wind, almost anything can be done in-house, or
figured out. I'm a "learn by doing" kind of person,
so I have plenty of mistakes to call on, when trying
to figure out the right way of doing something.

From ATPM Readers

This month we feature desktop pictures[1] submitted by ATPM readers.

Arizona (10 images) These photos were taken by John Bonner of Mango Dental Software. They feature Sedona Arizona and Grand Canyon National Park.

Frog (1 image) This photo of a frog was taken by James Craig.

Red Rock Country (6 images) These images of Red Rock Country in Sedona, Arizona were submitted by Jim McElligott.

Gateway Arch (5 images) These pictures were taken by Bill Chenault from the top of the Gateway Arch in St. Louis, with a Canon S50. Some have had minor sharpening via Photoshop CS.

1. The Gateway Arch was built between 1963 and 1965. At 630 feet, it is the tallest man-made monument in the United States.

2. Looking north at the Mississippi River with the Martin Luther King Memorial Bridge in the foreground and the old bridge beyond it.

3. East St. Louis.

4. Busch Stadium from the Arch.

5. Looking west at St. Louis. The Old Courthouse (bottom, left) was built between 1839 and 1862. The Edward Jones Dome, home of the NFL's Rams, is partially visible at the far right.

Sunset (1 image) This photo was submitted by William Petty. It shows a sunset at Deer Point Lake in Panama City, Florida.

Previous Months' Desktop Pictures

Pictures from previous months are listed in the desktop pictures archives[2].

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[1]http://www.atpm.com/11.08/from-atpm-readers
[2]http://www.atpm.com/Back/desktop-pictures.shtml

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.
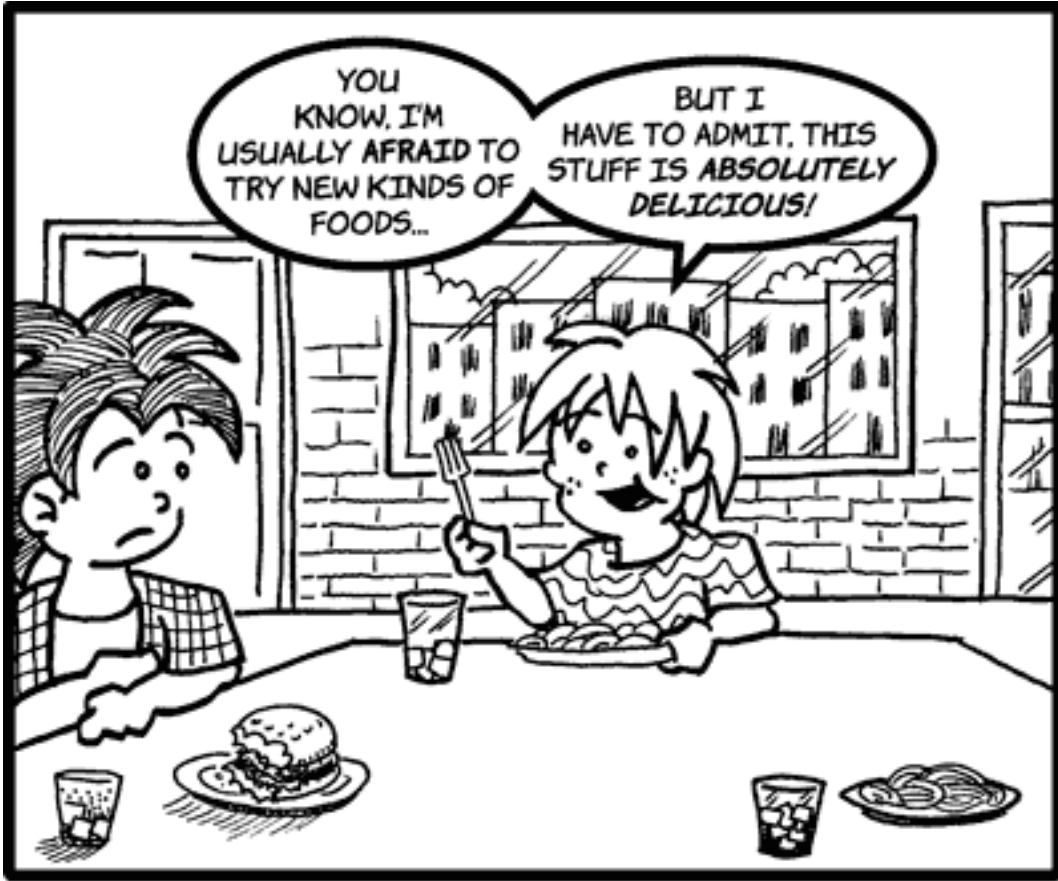
Mac OS X 10.0.x

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.
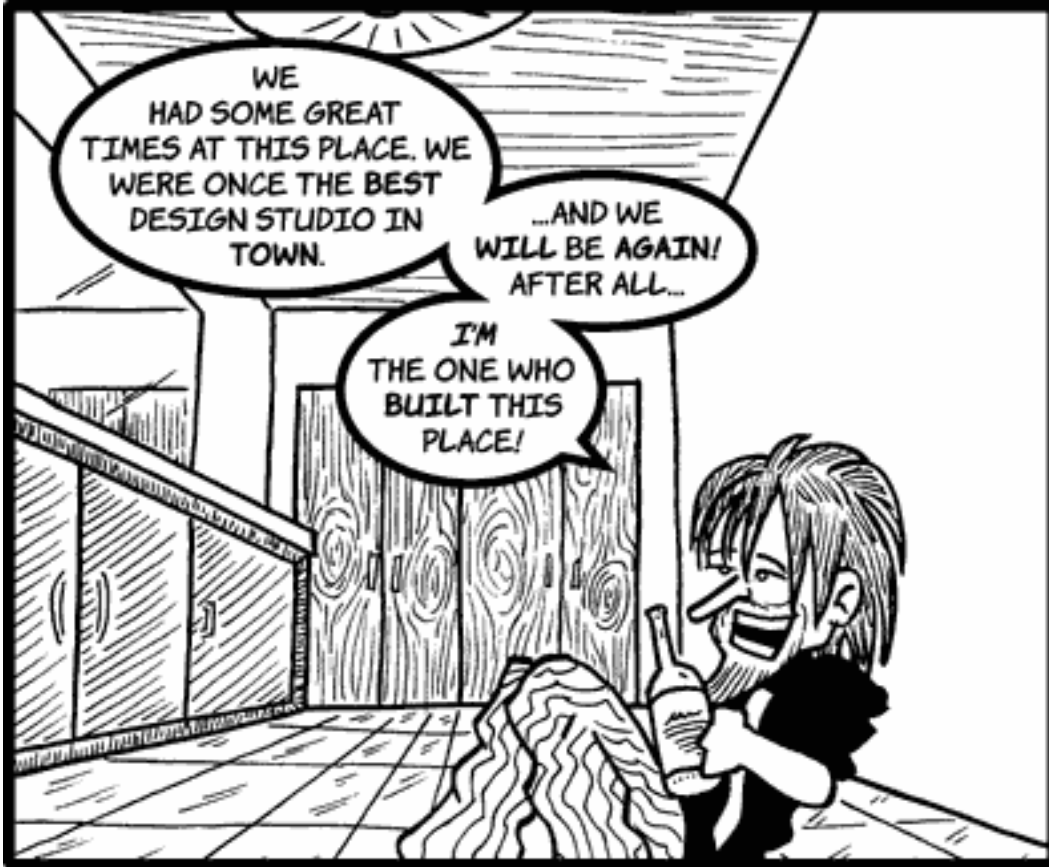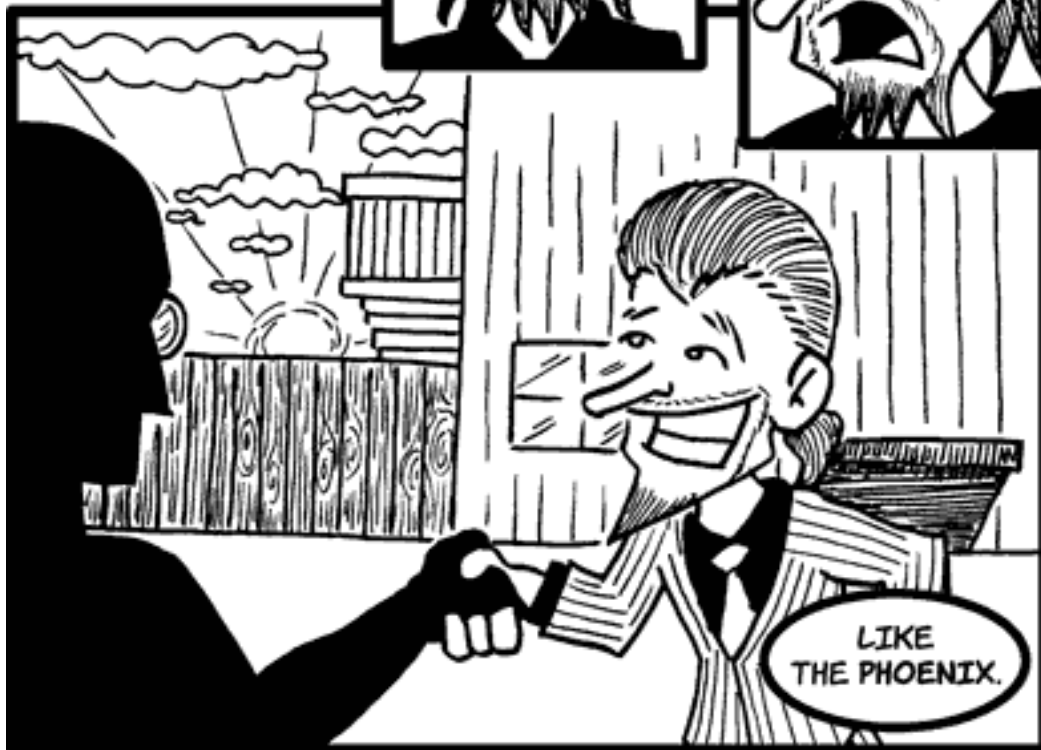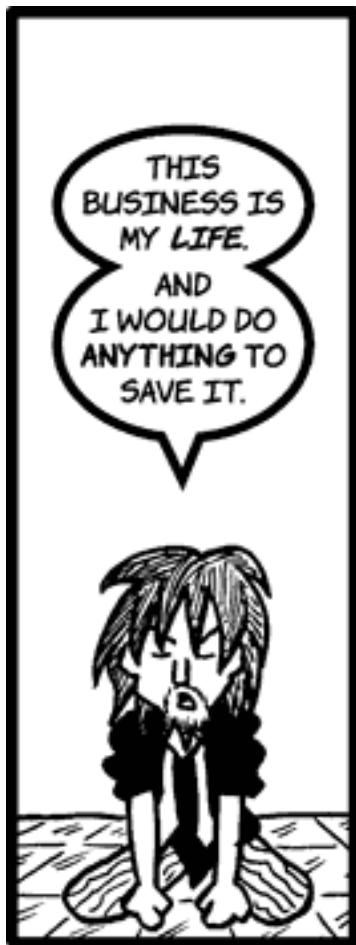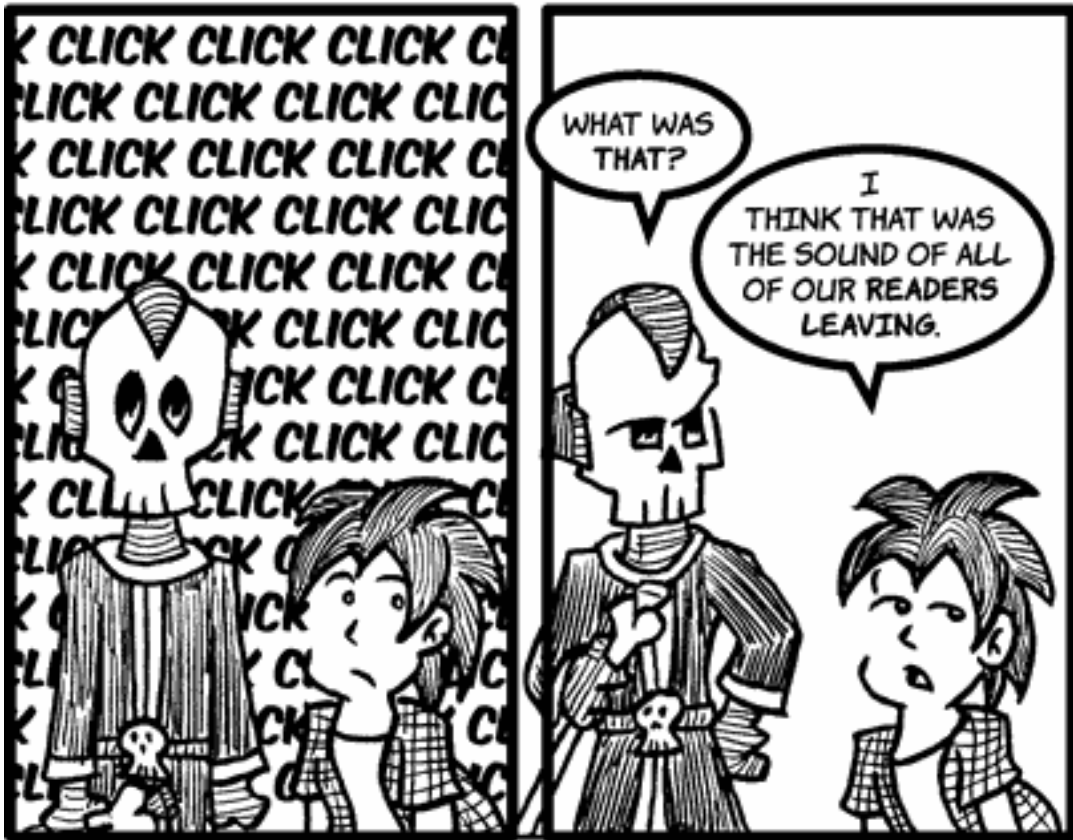
Cortland

by Matt Johnson, mjohnson@atpm.com
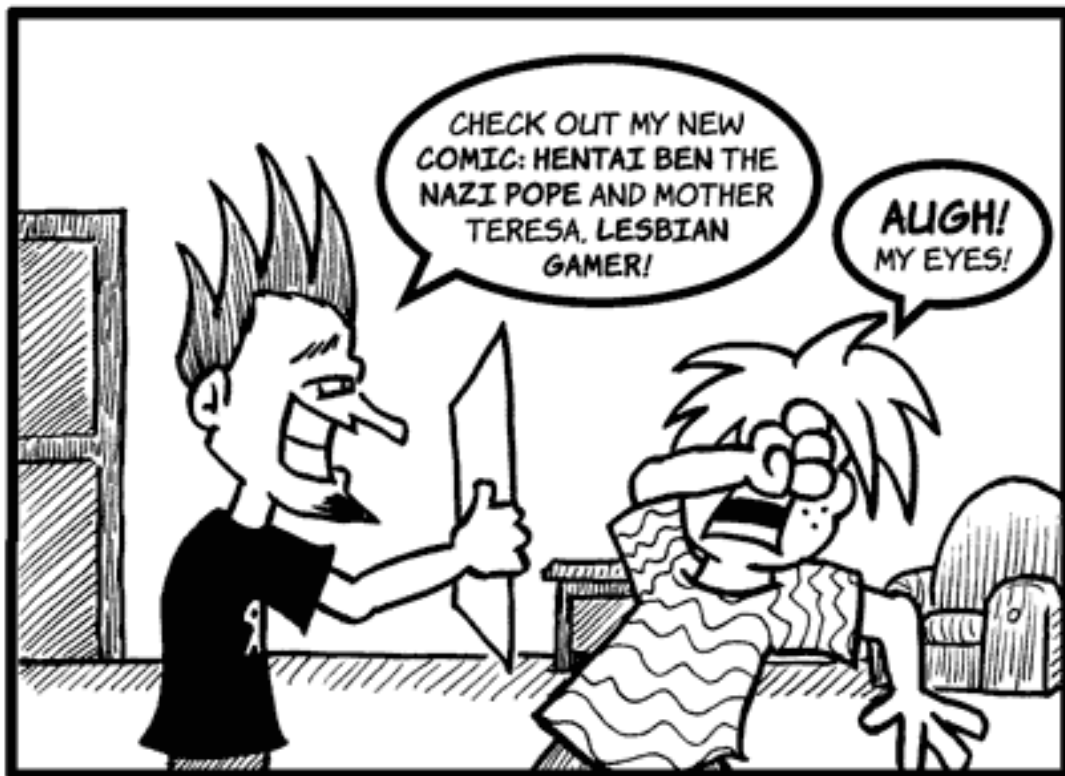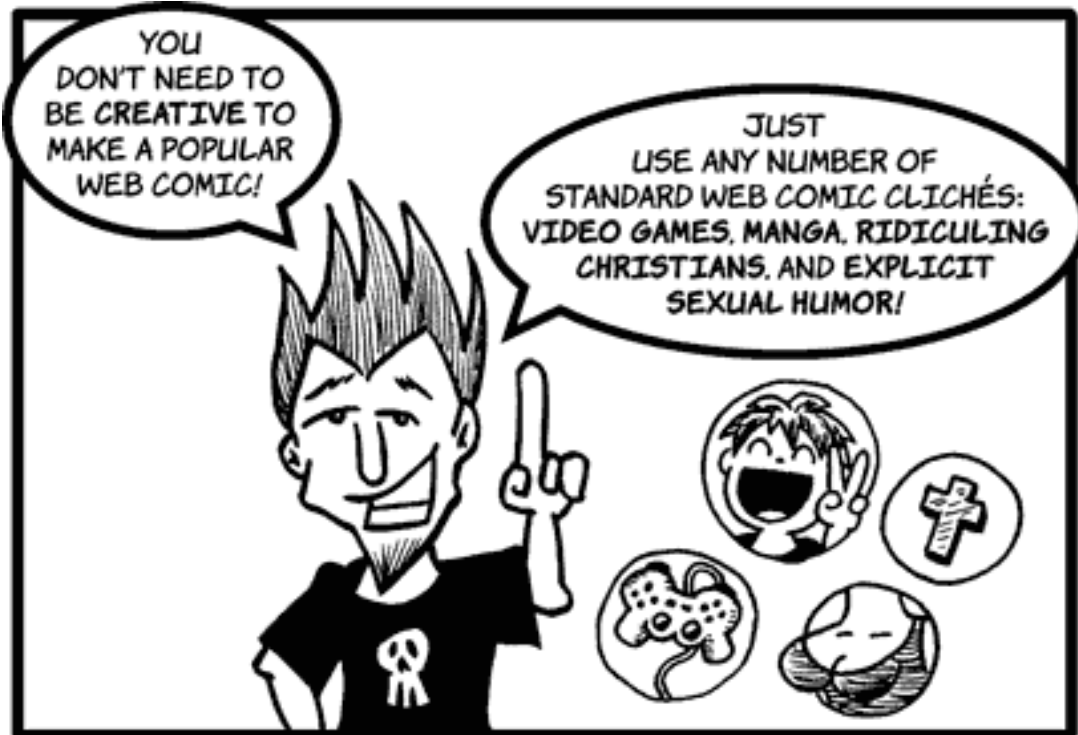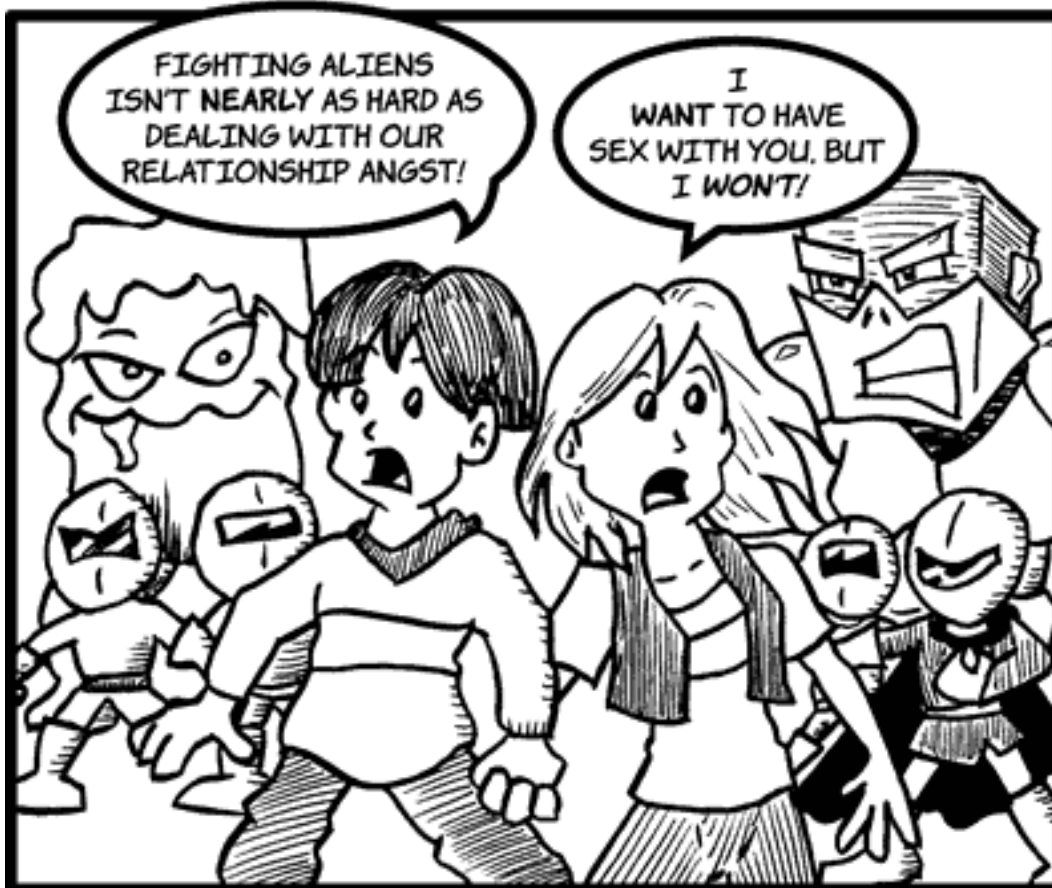
49
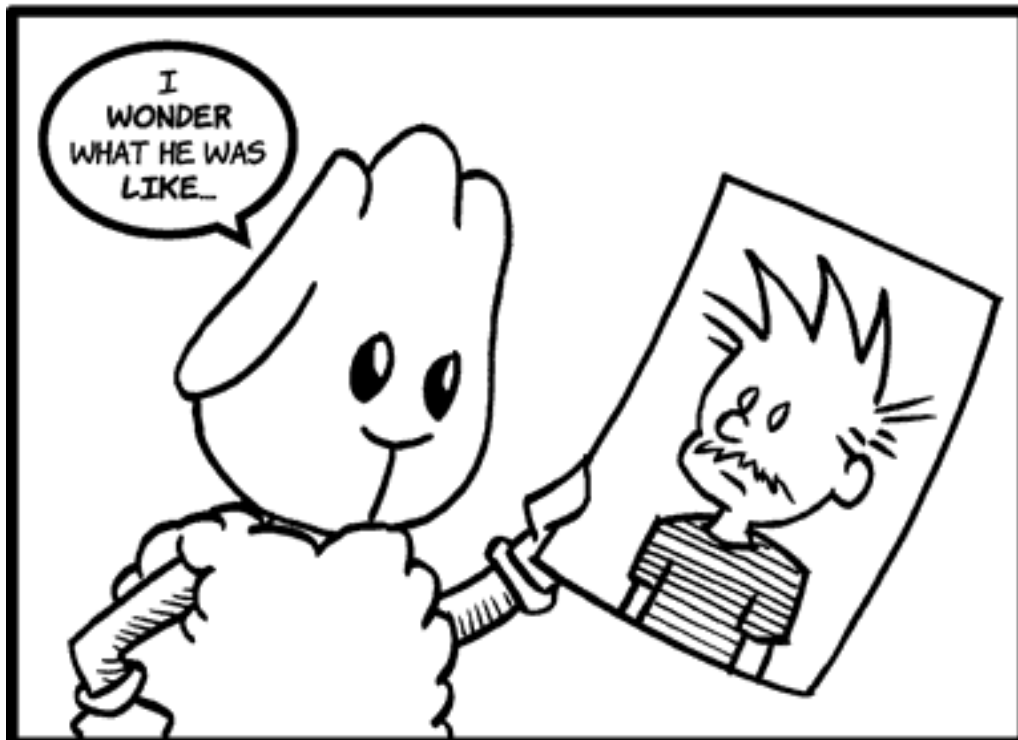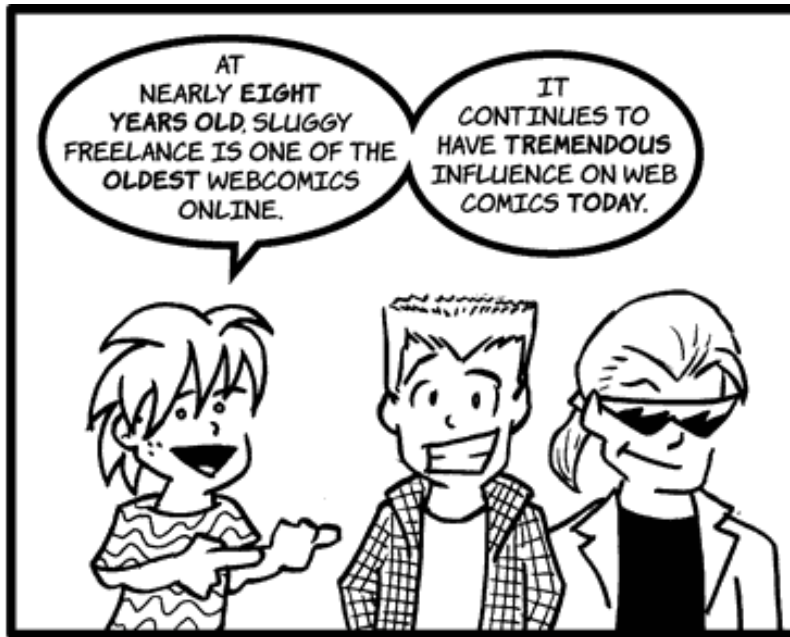
Frisky Freeware

by Matt Johnson, mjohnson@atpm.com
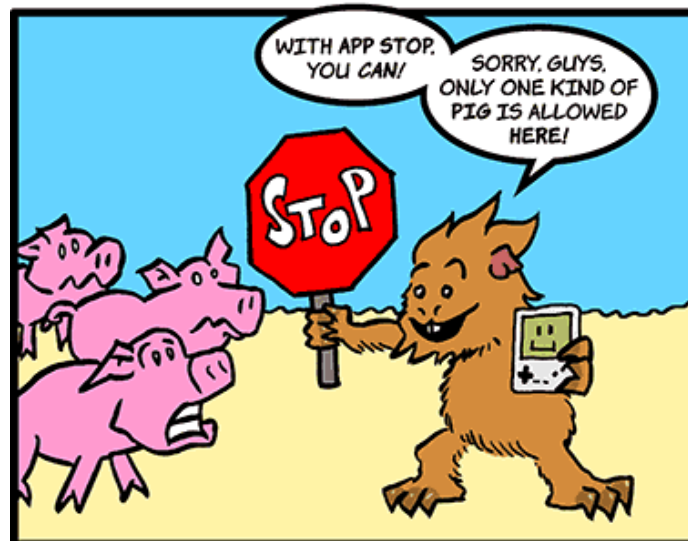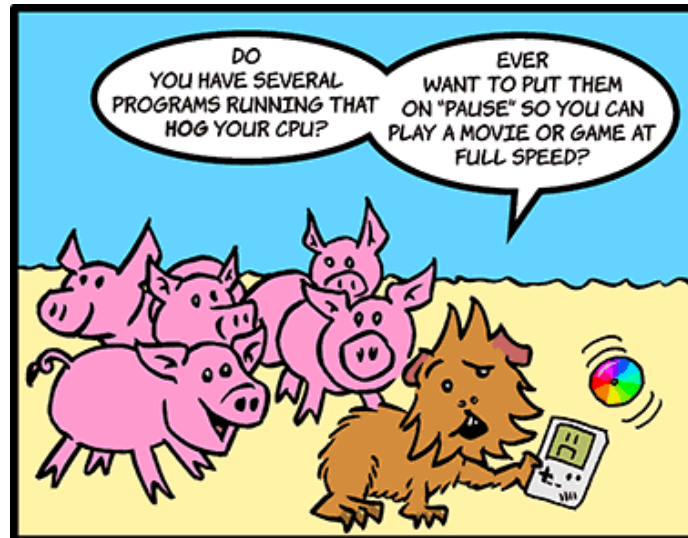
App Stop[a]

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[a]http://developer.mabwebdesign.com/appstop.html

by Tom Bridge and Tiffany Baxendell, tbridge@atpm.com

Backpack

Developer: 37 Signals[1]
Price: free to $19/month
Requirements: Safari or Firefox
Trial: Feature-limited (5 pages, 10 reminders)

The idea of a portfolio that you can use as a virtual scratchpad from any location is an appealing one, allowing you to store images, to-do items, e-mails, and collections of text, all in neat little piles that help you track all the scattered bits of your life. It's especially good for those of us with more than one computer and no easy method of synchronization across platforms, VPNs, corporate LANs, and software.

Enter Backpack[2]. From the same people[3] that brought us BaseCamp, a Web-based project management package, comes the product some describe as "project management for your life." Backpack has several versions of varying complexity that are priced from free to $19 per month. The free version gives you five pages (plus your home page) and ten reminders (which work through e-mail and such), and the expensive version gives you 500 pages, 250 MB of storage, and 300 reminders. The features that the free version provides are plenty for the average user, but as you find yourself managing more projects and events, you will outgrow the simple plan and find yourself peering at the costs of $5 a month to add file storage and 15 more pages to your list.

[1] http://www.backpackit.com
[2] http://backpackit.com
[3] http://www.37signals.com

Basic Page Interface

And what are those features? They're deceptively simple: Each page has a section for body text, a section for check-boxed lists, and one for notes, each with a title and a body. Paying users can also use their Backpacks to hold files or pictures in their holding bay. In addition, each individual page in a user's Backpack has a unique address for post-by-e-mail functionality, as well as the ability to be shared for editing with other Backpack users. Pages remain private unless the owner decides to make them publicly viewable (but not editable). The DHTML-based interface makes updates even easier than posting to a wiki, with drag-and-drop reordering of list items and in-line addition of new items.
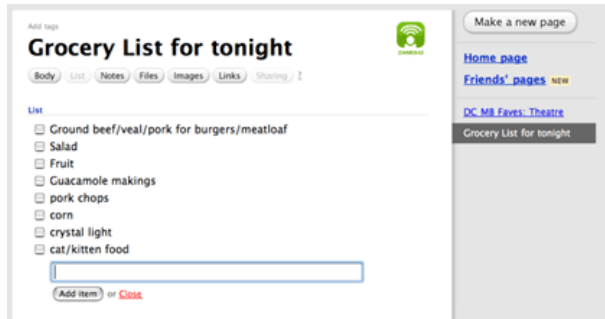
Checklists
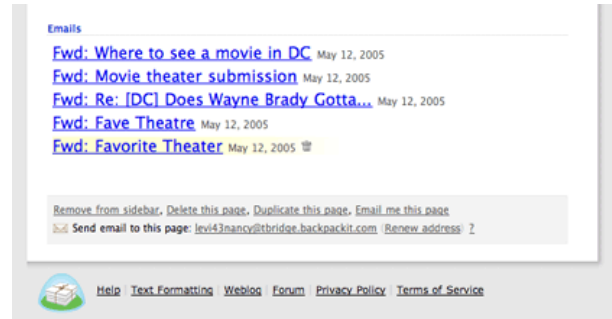
E-mails in a Page

Probably the most immediately obvious usage for Backpack is as a sort of virtual fridge-door for all the stuff you want to remember but can't act on at the moment you think about it. When I'm at work and come up with an idea for a blog post, but can't take the time to draft something just then—I toss the link and a few words up to a Backpack page and work on it later when I have time. If I find a cool online store where I can find a birthday gift for Mom? Brain-dump it to my Backpack and set a reminder to visit it a few weeks before the big day. We've done this with party information, random events around town, and of course it serves well to remind us to get movie tickets when the sales go live.

As you get into Backpack, however, the possibilities suddenly become endless as you think of all the things you can plan with it. Weddings, new business ventures, summer vacations, school and business projects, all suddenly seem much more manageable with Backpack's simple and elegant interface. Use it to hold information about potential clients you'd like to pursue. Working on a dinner party? Set up the grocery list and invite list, and RSVP space, as part of a Backpack page. You can see that this sort of space is limitless in its potential. We've turned our Backpack account into a place to handle group entries for a blog, a place to plan grocery lists and meal schedules, and the e-mail feature makes it possible to e-mail everything to a specific page that you're working on.

The 37signals development people remembered all the little touches designed to build user-evangelists, too. Forums invite users to share their ideas for making Backpack use even easier, such as setting up e-mail aliases for the Backpack e-mail addresses, and even a challenge to be the first person to come up with a usable Backpack widget[4] for the Tiger dashboard, which was met in very short order.
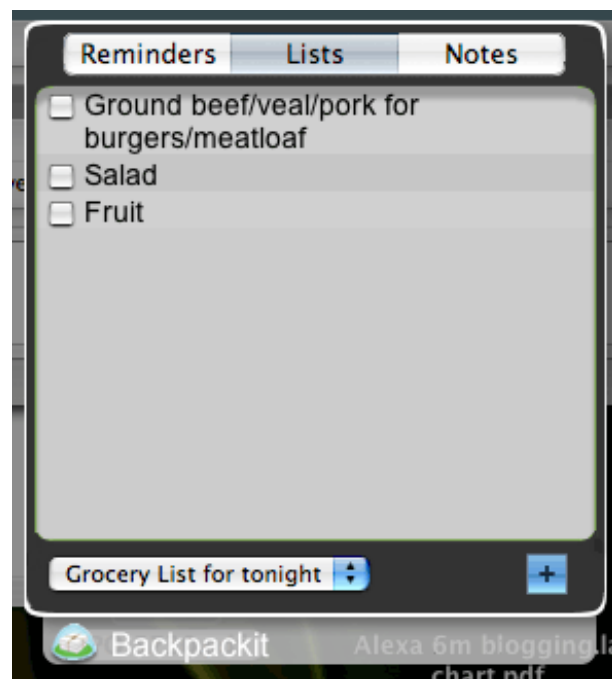
Backpack Widget in Action

If you have to deal with PCs—either at work, or because you're a masochist—you'll be gratified to hear that platform interoperability is fairly flawless. Files, pages, it all Just Works™, making everyone comfortable with the prospect of leaving their Macs

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[4]http://protagonist.co.uk/bpiDash

and not losing all their information. For those of us who have to live a dual-platform existence, this part makes coming home to the Mac at night all the more sweet.

The ability to use the Web to manage one's information, the free-account option, and the reasonable price-points for added functionality rank Backpack right up there with Flickr in terms of usability-per-dollar. We heartily recommend Backpack to all those folks looking to Get Things Done[5] just a little bit more quickly, or just to have a larger online portfolio for their stuff.

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

Boswell 4.0

Developer: Copernican Technologies[1]
Price: $100
Requirements: Mac OS 9 or Mac OS X
      (with caveats for 10.4)
Trial: Feature-limited (200 entries)

ATPM RATINGS
VERY NICE

If you pressed me for a good metaphor for Boswell, I would say, "Boswell is like Spotlight, for everything you write."

I believe it.

Unfortunately, Boswell's gigantic learning curve often scares potential users away, even in its target demographic: anyone who writes. It's really the perfect concept, and this is speaking as someone who is currently churning out 400–600 words *a day* as an intern, because it gives you something far, far better than Word and a directory structure to keep track of your writing. Boswell does it with metadata, "keywords," that keep everything organized, filed away, and easily located. If ol' Ben F. is burning a hole in your pocket and you don't want to read any more, then take away this: "Then I saw [Boswell]! Now I'm a believer! Without a trace of doubt in my mind!" Yes. I really, really liked it.

A brief digression into metadata should help me explain why it is that a directory structure doesn't go quite far enough. John Siracusa at *Ars Technica* is forever[2] harping[3] on[4] the[5] topic[6], as far as OS X is concerned with file metadata, so I will merely say, he is one of the most definitive sources; don't take my word for any of this. Metadata is data about data; in a nutshell, it's bits of information that describe or classify any chunk of data. The Spotlight Comments field in Tiger's Get Info window is an obvious example of metadata, but so are the filename extension (`.txt` or `.doc`), the created and modified timestamps, and the label. You can use all of that information to classify your files: You could run a search on your filesystem, time-consuming though it might be, for all files modified in 2005. Directory structure is a certain kind of metadata, too. I keep all my ATPM reviews in `~/Documents/ATPM/Reviews/`, and if I'm ever confused about a file's content, that path tells me it's a document, it's for ATPM, and it's a review.

Now, stretch the example further. I have another folder, `~/Documents/Articles/`, where I keep all my [non-ATPM, non-weblog] journalism. What if I wanted to put my ATPM and weblog articles there, too? You *can* do this, but it's not easy; you could make an alias in the Finder, or you could make a symbolic link. (Unix hard links would be the most Boswell-like solution.)

Here's where Boswell gets really revolutionary. Every piece of text in Boswell is an entry, the most completely irreducible particle in the Boswell universe; each can be as long as 32K, or about 15 printed pages. Each. An entry has five basic kinds of metadata: the title, the tag, comments/filters, the notebooks, and (almost too obvious) the library. In reality, it's a little less clean-cut than this, but it'll work.
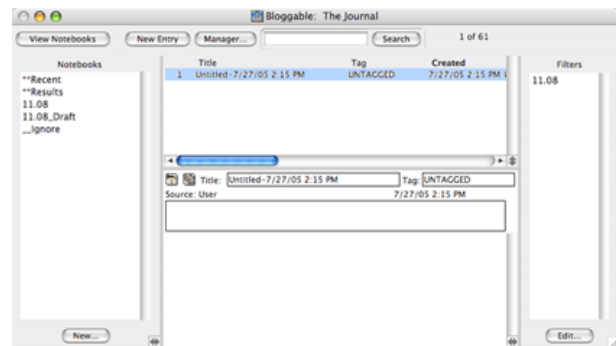

The metadata for each entry. No more, no less.

Boswell's primary unit of organization is the library, not like the public library downtown but more like the kind of library 18th-century aristocratic savants kept in their own homes. Everything you enter into Boswell stays in a library. Of course, for the purposes of this review, I segregated my writing into three separate libraries, for varying kinds

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[1] `http://www.boswell.com`
[2] `http://arstechnica.com/reviews/os/metadata.ars`
[3] `http://homepage.mac.com/jcs/.Public/proposal.html`
[4] `http://arstechnica.com/reviews/os/macosx-10.4.ars/6`
[5] `http://arstechnica.com/reviews/2q00/macos-qna/macos-x-qa-2.html#q1`
[6] `http://arstechnica.com/reviews/os/macosx-10.1.ars/11`

of tests and so my screenshots wouldn't reveal pre-publication material for the magazine where I work; but in practice, you should be able to put everything in just one. Each library can hold 4,000 notebooks and 1,000,000 entries, which would be about 30.5 GB. To give you a sense of how large that is, Charles Moore, in [his Boswell review](#)[7], says Shakespeare's *A Midsummer Night's Dream* would require three entries, or 96K.

All entries begin life in the journal, an unfiled, editable part of the library. When something is still in the journal, it is not archived in any notebooks, and you can continue changing it. Essentially, the journal is like my completely unsorted mess of writing that I described [in issue 11.05](#)[8]. At some point, I will presumably want to file away those entries, though—and there's a 30-day limitation on how long something can sit in the journal.
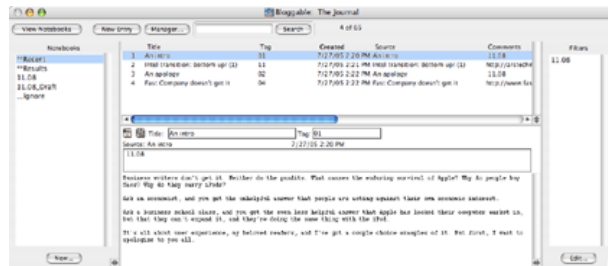
The Journal, where all entries are born, completely uncategorized. Sort of like people, really.

Once you get to that vortex of crucially, the method of organization is notebooks. A good analogue for how Boswell's notebooks work is Apple Mail's Smart Folders. What I mean by that is that, based on the metadata you give it—more on that in a moment—it will sift your entries into as many notebooks as fit, and without prompting you, if you prefer. When you do that, these entries become permanent members of the archive, uneditable and filed away in notebooks.

This is surprisingly, weirdly useful. Let's return for a moment to my earlier example: I can now have those articles be in 'atpm,' 'Reviews,' and 'Articles' without any trouble. All I have to do is make sure it gets flagged that way. For my super top-secret project, I have a notebook that contains all entries, and individual notebooks for individual articles. Compare finding a particular item by selecting the most general notebook it might be in to drilling

down through folders. The architecture isn't as flat as Spotlight makes your hard drive, but it *is* much flatter than the traditional hierarchical file system.

Copernican Technologies, Boswell's creators, suggest that you import your e-mail, too. I was unable to try this, due to a mysterious Tiger bug that makes it impossible to import text from files; it has been fixed, and a version 4.0.1 should be available by the time you read this. That means that, unlike me, you can import your e-mail, and have a notebook All_Email; you could also have a John_Email, an Elaine_Email, etc., too. *(Note: Unfortunately, the fix only allows you to import any file, even non-text ones. Be careful only to import text. Copernican Tech says it's due to substantial changes in underlying OS X code.)*

Now, how does it know where to put these files? That's where the filters come in. In each entry's strangely named Comments field, you may type in hints to help Boswell sort all of the entries into the appropriate notebooks. Implicitly, all folder names are filters, and their names are draggable into the Comments box. In addition, when you create a notebook, or using the Filters window, you can specify any *other* text as a hint for Boswell's archiving.
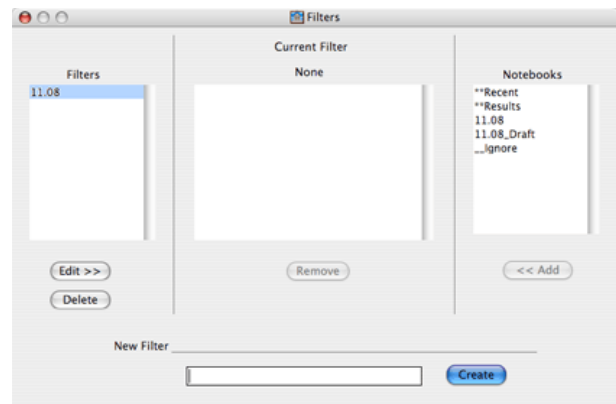
The Filters window. Much more than you think. Pity the name is so confusing.

By using filters, Boswell can automatically put away the entries for you. Just click Auto-Archive and, poof! the entry is filed away. Ta-da! You can also do things the hard way, by clicking Archive, and you will get a dialog, auto-filled with your hints, as to where you want the entry archived.

Before I proceed any further, I want to add a caveat to my analogy to Smart Folders. As you can see, Boswell is not dynamic, like Mail or Spotlight. Something is either in the archive, and uneditable, or it is in the journal. You can "versionize" an entry

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[7] http://www.applelinks.com/mooresviews/bos31.shtml
[8] http://www.atpm.com/11.05/macjournal.shtml

in the journal to save it in the archive—Will Vol-nak, the lead programmer, says that way you never have to lose text in the editing process—and you can "clone" an entry in the archive to bring it back up to the journal for editing. *But,* in both cases, what you get is a new *version,* and when you next archive the entry, you will find that there are now two entries with the same titles.

The other important metadata about an entry are its timestamp, which is not editable, and its tag. The timestamp, of course, is the date this particular version was created. A tag is any string of 16 characters that, by default, indicate status ('UNTAGGED,' or 'IMPORTED'), but can be used to indicate versioning—I use '01', '02', '03'—or sort order, which shows in the window and is respected during notebook export. The tag is always editable, even in archived entries; this is more useful than you imagine when you decide to reorganize an article at the last minute. If you write a lot, this will sound familiar.

Whew! I think we're done explaining all of Boswell's complex structure and technology. What does this all mean in practice? I'll describe a few scenarios for you.
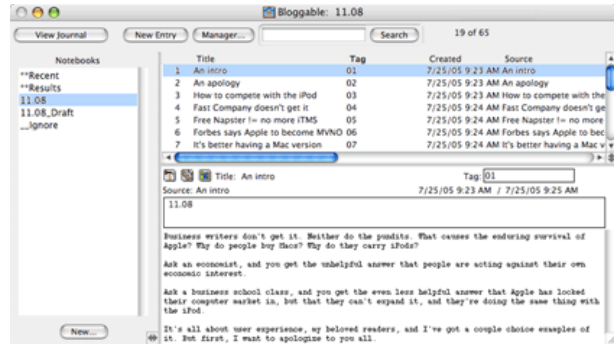
Bloggable

You may have read about my [insanely sloppy] writing process in May[9]. You may not have. Suffice it to say, as I put together one of my monthly columns, I accumulate anywhere from 20 to 50 links, which usually work out to 10–15 bullet points, sections, and paragraphs. Using Boswell, I'm able to put each bullet point in an entry and auto-archive it when I'm ready to use it. Then, I reorganize the whole note-book once I'm ready to export, at the end of the month, and voila! I export. The trick to exporting is that the format resembles an mbox file somewhat, so you'll have to edit it with a text editor before, say, sending your column to your editor. But it was a piece of cake. How great is that? I like pieces of cake. They taste good. They make a mess on my key-board, though. Oh, and don't forget that I like the pain of keeping a stack of sticky notes, a Moleskine[10], and Drop Drawers[11] drawers just to put together a column. Imagine how you will feel.

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[9]http://www.atpm.com/11.05/macjournal.shtml
[10]http://www.moleskine.co.uk
[11]http://www.sigsoftware.com/dropdrawers/

My Bloggable library.

Everything Else

I imported almost everything I've ever written, except my e-mail, through a (slow) copy-and-paste process. Then, I filed it away in a large variety of notebooks, many of which overlapped: 'ATPM,' 'Reviews,' 'The Daily Northwestern,' 'My Weblog,' 'Lecture Notes,' 'Paper Notes,' etc. I tested what would seem to be a logical way to write a paper with Boswell, by creating a journal for all book notes, and then creating some sample entries distilled from that to go in a separate journal with just notes for the paper, and drilling down until I had a notebook just for the final draft. (I don't have a screenshot of this, because that journal, too, contains sensitive information.) That last notebook, 'Sample_Paper_Final_Draft,' contained five entries, one for each section, demonstrating the correct structure to pass the SAT essay writing. Exporting it, I just had to strip out a few lines of metadata for each section, as well as the divider, and I had a paper. In a magazine article, this would have been even simpler, and allowed me easy reorganization when, not if, I decided to change the order of the paragraphs.

My Double-Super-Secret-Background Project

As I mentioned, in my current capacity I'm writing 400–600 words a day for a gigantic project. I have notebooks set up for each section of the project, each separate article, and for the entire project. That gives me a really good, really fast index of everything I've done so far, and where I have to go. I use the page number as the tag, to keep things neatly filed away. When the time comes, I'll start exporting. It has several hundred entries right now, and shows no signs of slowing down. I know I'll be in the inside of the various limits.

• • •

The challenge of using Boswell is, of course, the learning curve. It took me about two weeks to figure out just how to leverage Auto- Archive to my advantage; I hardly ever used Versionize; and I never once touched the Archive dialog window, though I suspect that's because Auto-Archive makes more sense. I'm sure I'm still not using Boswell to its full potential, because it's capable of storing everything I've ever written, indexing it, and helping me glue it together. After two months as a Boswell user—I lost the original database, which contained July's *Bloggable* and all the material for this review, in a hard drive failure in mid-June—I feel proficient enough that I could probably write a book using just Boswell. And it's getting easier. Keyboard bindings helped. (More on that in a moment.)

Boswell has its flaws outside of the learning curve, too. In order to select the label you wish to drag, you have to click on it first, which, for whatever reason, is a behavior completely counterintuitive to me. There is not yet, though there will be in 4.1, a way to strip/reset formatting from text pasted in, which is also a new option in Word 2004. Keyboard shortcuts are virtually non-existent; I went through and assigned them myself using System Preferences, but it's awkward to have virtually no shortcuts, especially for something as smooth as Auto-Archive (Command-Shift-A, in my configuration). Occasionally, if I choose Undo the application crashes, for reasons completely beyond my understanding. Boswell can auto-save, and after a crash it warns you to check up on your entries, but that's not the same as not crashing, now, is it?

Other recurrent frustrations? No, you still can't delete an entry; this is supposed to be a feature, but what if I accidentally click New Entry instead of Archive? Also, the interface is ugly, the bastard child of a complicated user interface and Carbon. These are minor flaws, but they all make it harder to use Boswell, and it's already hard enough.

Lastly, and most frustrating of all, the documentation itself is contained as a Boswell file; this is creative as a proof of concept, and reinforces Copernican Tech's thinking that teaching Boswell doesn't let people use it however they want. I just know I would have learned the basics a lot faster from a traditional manual. It's how I learned OmniGraffle, no slouch of an application, and MORE and Word came with the most comprehensive manuals I've ever

seen in the days when their paradigms were still new. The best tool I found, to learn Boswell, is Damien Gallop's three-part review/tutorial at [MacWrite](#)[12] ([part one](#)[13], [part two](#)[14], and [part three](#)[15]).

I found Boswell to be quite powerful, and quite useful in organizing my writing. I've got it holding most everything I've ever written, often in multiple versions, and it's quite easy to find what I'm looking for. Better still, it easily and quickly exports notebooks into a useful format. I'm sold on its flexibility, on its TMTOWTDI ("there's more than one way to do it") philosophy. I just wish it were a little less complex, in the end.

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[12]http://www.macwrite.com/
[13]http://www.macwrite.com/criticalmass/boswell-for-mac-part-1.php
[14]http://www.macwrite.com/criticalmass/boswell-for-mac-part-2.php
[15]http://www.macwrite.com/criticalmass/boswell-for-mac-part-3.php

Brenthaven Pro 12/15

Developer: Brenthaven[1]
Price: $149
Requirements: 12″ or 15″ laptop
Trial: None

More than two decades, half of my life, has been spent on the quest for the ideal computer bag. Along the way I have encountered many, many bags, in all form factors, sizes, and styles. As I advanced in years, I recognized that my tastes and needs have advanced as well. For a long time I was obsessed with the backpacks and really colorful bags, which would stand out from the crowd and be considered funky. At this point in my life I am looking for something a little more reserved—and definitely on my shoulder, not my back.

For this purpose, I shall focus on computer shoulder bags and only those that I deem worthy of review. There are far too bag makers and vendors out there hawking items of dubious quality. Our computers are far too valuable to be entrusted to just any bag. I should say at this point that some of the better bags I have come across in my travels did not start out their lives as computer bags. There are a number of mountaineering companies who have designed some really nice gear and with just a little bit of tweaking can be much more than serviceable.

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[1] http://www.brenthaven.com

Brenthaven's Core Protection system is a compartment outfitted with a removable and adjustable padded foam sleeve. The sleeve is comprised of hard-sided panels, and snaps in tightly to the interior notebook compartment. Brenthaven claims its protection is "unparalleled" and that it acts as a cradle protecting the computer from impact on all four corners and two sides. While I was not about to use my very own PowerBook as a test subject, the manufacturer kindly points out that this system will provide for the "maximum defense from unexpected drops, bang and bumps." It sounds nice, and while it is assuredly more protection than most bags offer, I am not about to unexpectedly drop, bang, or bump my PowerBook in their bag. Thank you very much.

The bag is not going to win any points for style. It is basic black, and its shape is boxy. Nobody is going to confuse the 12/15 Pro with anything other than a computer bag. Any criminal bent on acquiring a notebook computer is not going to have look far when you enter the room with this bag on your shoulder. The exterior is made of military grade ballistic nylon and is no worse for wear, even after three grueling weeks with me carrying it on New York's sweltering sidewalks and steamy subway system.

I pack a lot in my computer bag—I reckon more than most, indeed more than the average road warrior. Apart from my notebook there is my MP3 player, headphones, digital camera, portable hard drives, spare battery, AC adapter, mobile phone, digital memory, memory adapters, cables, and a set of international power adapters. For this reason, the first thing I look at inside any bag, is where they expect me to store all of my gadgets and peripheral equipment.

Brenthaven's 12/15 has more than enough pockets and compartments, but they are not well thought out, nor are they really well constructed. It is a shame that a better job could not have been done sorting this area out. Granted, I could fit all my devices inside, but then getting to them in a constructive manner was simply a lost cause. I was not impressed with the interior design at all. It resembled a host of other bags, and were it not for the isolation system and the feel of its exterior, this bag would hardly stand out from the crowd.

I really wanted to like this bag more than I do, but alas, that is not the case. Buy it because it is a workhorse, because it will both isolate and protect your notebook; however, if style and/or functionality play any role in your decision making process when purchasing a computer bag, do look elsewhere.

Detour

Developer: Timbuk2[1]
Price: $100
Requirements: 12–15″ laptop
Trial: None

Timbuk2 has an incredible reputation in the laptop-carrying world, thanks to their messenger bags. As a backpack guy, I was thrilled to hear the company was releasing a bag that would suit me. Unfortunately, the Detour didn't live up to my expectations.

First, the Detour is not a true backpack. It's described by Timbuk2 as a "vertical briefcase" for your portable computer. If you are familiar with Kensington's popular Saddlebag, then you know the style of bag the Detour falls into.

Like the majority of computer carrying bags manufactured now, the Detour is constructed out of tough ballistic nylon, and is available in a multitude of solid and dual-color schemes. The padded carrying handle on top is quite comfortable. The laptop compartment is lined, so as not to scratch the exterior of a metal-clad notebook, say like a PowerBook. The compart-

ment has some paddings on the sides, as well as the back, bottom, and the divider separating it from the bag's other compartment. However, I did not feel that this built-in padding alone was sufficient for full protection. My 12-inch PowerBook still traveled in its SleeveCase[2] from Waterfield Design. The bottom of the Detour is, as stated above, padded, but on the exterior has a wide, rubberized form. When the bag has sufficient weight inside it, this allows the Detour to stand up when placed on the floor or a table top.

The Detour has a good amount of storage space. It doesn't come close to my Brain Bag[3], but then, very little does. Still, it was able to haul about 85% of what I typically cram in to the Brain Bag. Storagewise, the average user will have nothing to complain about.

A water bottle holster graces either side of the bag. The Detour's flap has a single pocket, at the top. The pocket does not reach into the flap itself, but rather goes through the top spine of the bag into the back, between the laptop compartment and the storage pocket for the shoulder straps. The flap at-

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[1] http://www.timbuk2.com/tb2/catalog/categories.t2?categoryId=9

[2] http://www.atpm.com/10.11/cargo.shtml
[3] http://www.atpm.com/8.04/bags.shtml

taches to the bag via two large Velcro pads, and can be further secured from casual opening with the two plastic clips.

Under the flap is a small zippered pocket, good for a thin wallet, passport, airline tickets, and the like. On either side of that is a large, non-zippered compartment, perfect for your iPod, mobile phone, headphones, various cables, and the list could go on.

The main compartment is separated in two by a padded divider. To the rear is the laptop compartment, discussed above. The other side is open for whatever you feel the need to store. I used this space for my external FireWire drives, CD/DVD travel case, and cable pouches, as well as a few magazines and a paperback. This compartment has an integrated sleeve with various-sized pockets on it for smaller items, like pens and notepads. It even has a business-card pocket with a clear face, so when you pull the sleeve up to access items, you can advertise who you are.

Because it is a vertical briefcase, you have three carrying options with the Detour. First, you can carry it just like a briefcase, with the padded handle. Second, you can use the included shoulder strap, which attaches to two metal D-rings on either side of the bag, and carry it either messenger-style, slung across the body, or vertically from either shoulder. Last, you can open the the pocket on the back of the bag and remove the two shoulder straps, using the Detour as a backpack. It was this last configuration that I, as a backpack guy, chose. I was disappointed.

The padding on the Detour's shoulder straps is minimal, and toward the top the straps are simply too wide. The padding does not extend to the edges of the straps, so the edging cut into my arms and chest, making it the most uncomfortable backpack I've ever

used. Even the cheap Jansport school pack I still have from college 13 years ago has more comfortable shoulder straps than the Detour.

Ultimately, it was the carrying styles that disappointed me in the Detour. While I wasn't expecting full backpack performance from a vertical briefcase-style bag, I was expecting more than what the Detour offers. I don't see how anyone could be comfortable with those shoulder straps for any reasonable period of time. The bag doesn't balance well when used in the messenger style, and messenger-bag aficionados should stick with true messenger bags, which Timbuk2 is widely known for. If you like the Kesington Saddlebag, you may want to investigate the Detour, but it's certainly not a bag for me.

MaxSleeve

Developer: MaxUpgrades[1]
Price: $24–28
Requirements: iBook or PowerBook, all sizes
Trial: None

Laptop computers are undeniably fragile compared to their desktop counterparts. In order to protect such a significant investment, users spend substantial sums on various specially designed bags, backpacks, cases, shells, and the like. To this end, MaxUpgrades has introduced the MaxSleeve, a close-fitting zippered sleeve sized for Apple's various laptop models.

The MaxSleeve, like Tom Bihn's vaguely similar Brain Cell or Kensington's discontinued Wetsuit line, is not intended to be a standalone laptop carrying case. It is intended to offer a modicum of impact and scratch protection to a laptop carried inside another bag or backpack, and at this task it excels admirably.

Made of high-density "memory foam" like that found in as-seen-on-TV Swedish mattresses, the protective layer in the MaxSleeve provides some degree of impact protection. It feels more substantial than the neoprene sleeves of the past, but falls short of the stiff

plastic lining inside the Brain Cell. The soft interior and padded zippers will keep the laptop scratch-free. For the truly paranoid, the MaxSleeve will fit—just barely—inside the Brain Cell, which will in turn fits inside most bags or backpacks for an extreme degree of protection.

The slightly lesser degree of protection is not without its benefits. Most notably, the MaxSleeve is substantially less bulky and weighs noticeably less than its competition. This makes for a much easier fit inside a backpack like the Boblbee Megalopolis[2] or the Axio line[3], where space is at a premium. Inside such hard-shell backpacks, the lack of a stiff sleeve is a non-issue.

In fact, the MaxSleeve is such an excellent companion to these hard-shell backpacks that both Boblbee and Axio would do well to strike a deal with MaxUpgrades to offer the sleeve with their products. Boblbee includes no sleeves with any of its backpacks, and Axio includes a cheap sleeve with only the Hybrid, though both the Fuse and the Swift desperately need one. The MaxSleeve fills the need perfectly, its form-fitting size just right for the tight laptop pockets in these various backpacks.

In much the same way, the MaxSleeve is an ideal match for briefcase-style laptop bags that lack a sleeve or form-fitting compartment for the laptop. Having the computer sloshing around inside a too-big pocket is a recipe for scratches and can be disastrous if the bag is dropped. Many briefcase bags include a sleeve, but there is room for improvement in most of them, particularly in the ingress/egress department.

Unlike some of the more substantial sleeves on the market, there is no provision for attaching a shoulder strap and using the MaxSleeve as its own "laptop purse." The utility of this feature on other products is dubious at best, however, and simply invites an accident when the lightly padded sleeve is used on its own. The point of a sleeve is to offer extra protection inside another bag, not to stand on its own as a case.

MaxUpgrades could steal one feature from its competition: a handle. Getting the sleeve itself out

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[1]http://www.maxupgrades.com/istore/index.cfm?fuseaction=product.display&Product_ID=102

[2]http://www.atpm.com/9.12/megalopolis.shtml
[3]http://www.atpm.com/11.04/axio.shtml

of a tight spot can be tricky, although if the dual zippers are brought together at the middle, they serve as enough of a handle to work in a pinch. The best advice is not to get yourself into tight situations in the first place.

A lot of laptop accessories, especially carrying cases, are awfully expensive considering their utility and quality. Not the MaxSleeve. At less than 30 bucks for even the 17″ version, you'd have a hard time going wrong with this one.

There's very little not to like about this sleeve. It's inexpensive, it gets the job done, and it looks classy doing it. If you've been looking for a sleeve, you've just found it.

Vyper XL

Developer: booq[1]
Price: $55
Requirements: iBook or PowerBook, all sizes
**Trial:** None

I placed an order for the Vyper case before it was available because it looked cool, and I'm glad I did because it works well. This laptop sleeve, manufactured by a reputable company, is made to high standards from semi-rigid high-density foam, with a black ballistic nylon exterior and a felt interior.

It features three lateral ridges on the top and three matching ridges on the bottom for shock protection. A zipper with two pulls runs around three sides and about half the bottom without coming into contact with the contents. A rubber grip strip runs the remaining half length of the bottom to ensure more secure carrying. There is no carrying handle.

The styling details are subtle, but they make this sleeve more attractive than a text description can convey. It is best described as minimalist, rather than plain. Such an observation would be ironic, except even Bauhaus architect Ludwig Mies van der Rohe, who coined the phrase "less is more," used decorative elements to express the underlying structure of his skyscrapers instead of merely relying on the message of the naked structure itself.
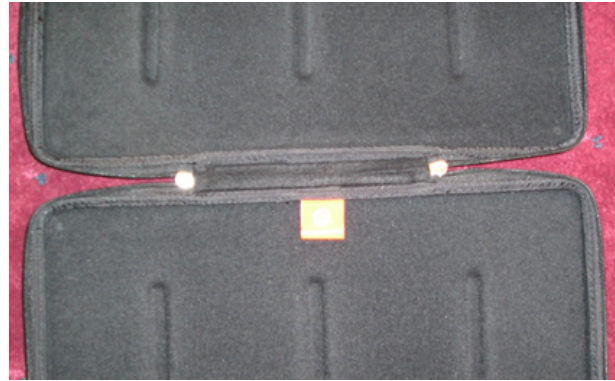
There are Vyper sizes suitable for each size of the current iterations of PowerBook and iBook, as well as a generic "L" for 15-inch Windows machines. (Be careful not to confuse the PowerBook 15-inch model with the Windows 15-inch model.) The fit is quite tight, so the zipper needs to be undone around the sides to extract the machine.

The only problems with the Vyper case are the stiffness of the zipper, which should become smoother with use, and a slight smell from the material, which dissipated after a few days. (I've looked at two other Vyper cases besides mine, and they differ slightly in the tightness of the fit and stiffness of the zipper. So presumably this is an issue of manufacturing tolerances, and there likely is a fair amount of individual variation.)

For some consumers, sleeves serve a function besides transportation. They act as a heat shielding cushion when a laptop is actually being used in a lap. The Vyper is superior in the heat shielding function. But it might not be as good as some competitors in providing the requisite stickiness as a cushion, i.e., inspiring confidence that the laptop will stay put on top of it rather than suffer a disastrous fall. The design also isn't meant for the computer to be used while remaining in the sleeve, because the sides are high enough to interfere with the power cord.

I am persuaded, however, that the Vyper by itself offers enough protection for short jaunts in the office, and, inserted into a backpack or briefcase, for just about any travel a typical user is likely to un-

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[1] http://www.booqbags.com/Detail.bok?no=93

dertake. Without having performed rigorous Consumers Reports style testing, it is nonetheless possible to conclude with confidence that the case will shield a PowerBook from the damage that could be done by daily wear and tear. I previously used a case from JR Hill, in leather with very light padding, and it served its purpose perfectly for two years, with a Titanium PowerBook holding up just fine. This case appears to be better. I've also used neoprene cases. This case is much stiffer.

All in all, I'd recommend the Vyper case. The best statement I can make about it is that I intend to use it on a daily basis.

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.

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[1] mailto:editor@atpm.com
[2] http://www.atpm.com/subscribe

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- 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.

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[3] http://www.adobe.com/prodindex/acrobat/readstep.html

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Segments: Slices from the Macintosh Life

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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.

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