ATPM

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

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Welcome

This month's issue includes:

The Candy Apple: It's Too Bad We Need This Device

Fingerprint recognition technology makes Ellyn Ritterskamp wonder about pawprints, too.

Bloggable: Wishful Thinking

We've all heard the phrase before. Repeat it with us: "If it sounds too good to be true, it probably is." As if Wes Meltzer's column on that topic isn't enough on its own, he has more blogosphere goings-on to reprt: Cocoa and Carbon history, Palm's support (or lack thereof?) for the Mac, iSync liberation, platform expatriation, Word 2004, and OS X's interface.

Machine Language: Some Offers We Are Not Needing

Thanks to spam, Matt Coates finds himself on a first-name basis with lots of new friends. When he's not digging through e-mail, Matt can be found tinkering with his new mini-network of iPod, Mac and cellphone—his eye-opening introduction to the real promise of the digital hub.

How To: Distributed Blender Rendering with Xgrid

Most of us will likely never have any exposure to cluster computing projects, but Andrew Kator's column—instructions he feels Apple left out of the manual—is a nice diversion for anyone, if only to see how cool and how simple distributed tasking is with Apple's new Xgrid.

Cartoon: Cortland

With the NeoCort story arc concluded (or is it?), Matt Johnson returns to Cortland and Todd's job hunt—not to mention his own!

Cartoon: iTrolls

The iTrolls seem to think a new sports team is about to take the field. Meanwhile, they'll just muse about a radical opinion from *eWeek*, XP People, and an "innovative" declaration from Bill Gates.

Desktop Pictures: Puerto Rico

Web Editor Lee Bennett offers the second half of the images from his trip to Puerto Rico in April.

Review: Apple Confidential 2.0 (book)

Hush hush and on the QT, Brooke Smith gets the scoop on Apple in Owen Linzmayer's latest book.

Review: Hardware Hacking Projects for Geeks (book)

Chris Lawson enjoyed this hardware hacker's how-to manual disguised as a very entertaining read.

Review: iStumbler 86

iStumbler will need some polishing before Wes Meltzer is ready to give it high marks.

Review: Mariner Write 3.6

If you're fed up with the bloat that is Microsoft Word and the less-than-complete feeling that is many other text editors, Paul Fatula suggests giving Mariner Write a try.

Review: QuicKeys X2 2.1

Gregory Tetrault says QuicKeys X2 is still not the power tool it was in its version 4 and 5 days.

Review: SightLight

Back this month with another iSight accessory, Lee Bennett isn't nearly as impressed this time around.

E-Mail

Sitting in on the Jam

I fear I may have opened a can of worms: I forwarded this article to my teenage daughter, who plays the sax, drums, and guitar. Now, I'll have to keep the CD-Rs locked up.

—*John Hinds*

Panther Little Black Book Review

I was going to publish a review of this book for Apple-X, but never got around to it. Honestly, I didn't find it all that useful, but then again, I've been using Unix variants for years and Mac OS X since it was in beta. This book isn't going to appeal to any power users.

That aside, I think this is a very handy book for those who are not power users. It contains a lot of decent information and, for those not familiar with the "black book" style books this publisher releases, they are very much aimed at helping with tasks. Each chapter has a decent overview at the beginning and then launches into a list of common problems/needs/actions and solutions.

—*Dave Giffin*

Cloning Mac OS 9

Cloning Mac OS 9 and Mac OS X by creating a universal bootable CD or an emergency FireWire drive has been extensively covered (with diagrams and step-by-step info) in my new e-book, Fix a Troubled Mac.

—*dirtymouse*

Thanks for that link. I'll be sure to pass that information on to anyone interested in such topics. I have already checked out the link and will be parting with some cash soon. If the book is as well written as your articles are the price is more than reasonable.   —*Sylvester Roque*

Outliners: NoteTaker and NoteBook

Thanks for the columns. I posted a comment back to 9.12 back in December saying that this series was perfect timing for me, and I haven't been disappointed (although I've yet to find the perfect application for me).

The notebook metaphors employed by NoteTaker and NoteBook seem terribly restrictive to me. Both implementations are very ugly too.

I think it would be extremely useful for you to mention changes to applications in the outliner zoo as they are made. The number of applications in bewildering, and a lot of them are in very active development. That would really help a lot of us.

—*Michael Williams*

A column on outliner changes was slated for this issue, but it had to be postponed due to a hardware failure. *ATPO* will return next month.   —*Michael Tsai*

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I wonder what NoteTaker does with a post-parental enter command. Is this maybe an acid test for thoughtful design? On Windows, Word idiotically inserts another parent which adopts the disinherited children. OneNote carries over this irrational behavior. NoteMap gets it right, as does ADM.

ADM, by the way, implements outlines of outlines in a consistent fashion so that the same outlining commands apply throughout. (These commands, moreover, include cloning, an innovative double hoist command, mark and gather, and a new way of mass-migrating headings.) But you aren't the only person ignoring ADM. Its developer could be another.

Thank you for the article—for me, the most thought-provoking one yet.

—*Stephen Diamond*

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Firstly, thanks for a most informative article. I would like to draw attention to InfoSelect from Micrologic. I was using this whilst confined to the Windows tedium. It was the one product that made me want to hang onto my PC. Its strength was the heuristic search capability. To me, the most important feature of these new free form databases is the ability to find the stuff that you carelessly throw in. I don't want to have to think about tagging and labelling info. I will never remember how to find it again. *The power* is in the search and find abilities of these tools. Your review seemed more interested in input rather than output. Does anyone know of an OS X application that has the abilities of InfoSelect (Micrologic won't write for Mac)?

—Darren Eger

It's Too Bad We Need This Device

I read an article in a recent *Scientific American*, about this gadget you can buy that secures your laptop with a fingerprint rather than a password. It's called the U.are.U 4000. Somebody can still steal the unit, but they won't be able to use it. Well, a few forensic government types could, or I guess someone who could figure out a hack on the software that encodes the fingerprints. But realistically, if you had this thing on your laptop, no one you know would be able to use it for anything but a doorstop. The buzz phrase is "fingerprint recognition technology."

At first I thought that was really cool. They explained how sophisticated the devices are, and that they're really affordable too—I think the cheapest one was around $100. Maybe we can review one for a future issue. The writer's friend was determined to fake out the device, and he copied his friend's fingerprint with a piece of transparent tape. It still didn't fool the device. I can't remember the error rate the developers strove for, but from that little demonstration they certainly seem to have worked the kinks.

The devices are also equipped to recognize several fingerprints per unit, so you could have your laptop "keyed" to be used by several people. Each would only have access to whatever the administrator set up for them, so you could limit children to certain applications or whatever. Just like we do with many home computers. Well, and work computers, too; plenty of those have limited access. But they don't yet have fingerprint recognition technology all over the place, do they? It must not be too far away. If it's this cheap for home users, imagine what an office could do, buying several licenses at a discount.

I'm impressed by what we can do. I'm depressed by our need to do it.

I like that in the not too distant future, I could leave a laptop on the table at the coffee shop when I go for a refill, knowing that no one will steal it because they know most units are keyed to their users by fingerprint. What I don't like is knowing that human nature is

such that I must protect myself from it, by keying my laptop to a fingerprint so no one will steal it. Already I'm turned off from taking a laptop to the coffee shop a few years from now, and I don't even have one yet.

It is just one more example of how technology is an extension of human nature, rather than independent of it. If human nature were not sometimes selfish, we could do without locks and keys and fingerprint recognition. We would only need doors to keep something in rather than out. Like our kitties. It would only be a matter of time before someone would come up with a pawprint recognition system to let the cat decide when it wants to go in or out. Now *that* would be technology I know plenty of people would support!

But see, even then, we would have changed the fundamental relationship between cat and human. The cat knows the human exists to open the door. It doesn't matter which side the cat is on, it wants to be on the other side. That's what the humans are for, to open those doors. If we make it so the cat can open the door anytime it wants, we lose something important about the subservient relationship between cat and its human. So even though the cat would like the power of the pawprint, it prefers the power over the people. Maybe we should leave it alone. It's worked for centuries.

Wishful Thinking

If you saw an ad for an eMac for ¥2,787, you would be awfully suspicious, wouldn't you?

My professor in History and Issues of Journalism during my freshman year of college here at Northwestern always said, be skeptical, because it's all you'll have as a journalist. I took that to heart.

So let's say you've been trained in the Journalistic Skeptical Method. You know that the eMac retails for $799—less if you're an impoverished college student—and that the yen is usually about 115 to the dollar. (I remember seeing an ad in an economics textbook for a Mac SE/30 for 200,000 yen or so once.) ¥2,787 doesn't sound like all that much. It's about $25, to be precise.

Now, do you think you would place an order for that $25 eMac, or would you assume that something was wrong?

Well, apparently 20,000 or so people saw an ad from Catena on Yahoo! Japan for that ¥2,787 eMac and placed an average of 5,000 orders each. Or 100 million eMacs. Hmm.

Asahi Shimbun says (in English, thankfully) that Catena meant to list the price for a five-pack of recordable DVDs instead. The listing was removed at 11 AM the next day.

Sandy McMurray says that neither company has offered to fulfill the orders. Gosh, I can't imagine why! Can you imagine how much space 5,000 eMacs take up in the UPS truck? Think about your electrical bill, too. You don't really want all those eMacs.

Unsurprisingly, Jack Miller at As the Apple Turns was funnier than, say, Macworld or even Asahi Shimbun. Miller says that even if the orders had been fulfilled, Paul Thurrott and Rob Enderle would have been insistent that the eMac was overpriced, so it's not all that important that Apple's market share for the quarter would have been 90 per cent if all those eMacs actually *did* ship.

So, how about those 100 million eMacs? Can you say, wishful thinking?

That's this month's theme: unskeptical and wishful people who sincerely believe something and shouldn't, either because it's not going to happen or because it *can't* happen. In the past 30 days, I have done more forehead-slapping than I knew possible. Come on, people! These are just some selections:

- [Damien Barrett](#) thinks Apple should make the AirPort Base Station a [wireless digital hub](#), because it's overpriced. At some point, you have to ask yourself, don't people pay premium prices for hardware because it's premium hardware? Obligatory car analogy: my (hypothetical, unless you want to buy me one) BMW doesn't have *that* many more features than my (real) Mitsubishi, despite the added expense. There are plenty of neat things about the BMW, but it's not a hybrid plane-car just because it's more expensive. If you want a digital hub, buy or build a computer with a wireless card in it. The base station is just that. A base station. Not a computer.

- If you were using a file-sharing network and saw a 100 KB installer for Office 2004, you wouldn't download it; you'd ignore it and move on. I hope. Well, one of [Macworld UK's](#) readers didn't. He thought it was a beta and [lost his whole home folder](#) as a result. Guess what! It was an AppleScript that *claimed* to be an installer and really just ran [do shell script "rm -rf ~"](#). How challenging. Now, [Intego](#) takes this kind of thing as a major flaw at face value and claims that [its antivirus software deals with it](#). I remain highly skeptical. [MacNetJournal](#) remarks that assuming you only get your software from trustworthy sources [this isn't going to happen to you](#) and links you to some other good resources. [Miraz Jordan](#) says, "So, in case you're confused, where do you get the new version of MS Word from? You'll be paying a vendor. If there were somehow a free public demo or beta, then you'd get that direct from Microsoft." Jack at [AtAT](#) says this is a [Darwinian survival test](#), which ATPM copy editor [Chris Lawson](#) should appreciate.

- Last but not least of the painful forehead-slapping gophers popping up in this arcade game, [Geoff Ross](#) insists that Apple should sell a box that can [play movies](#) just like the iTMS and the iPod. Now, we've heard this all before, but Ross doesn't even consider the minor problems like copyright infringement, which clearly has the MPAA even more unhappy than the RIAA (if that's possible). Joel Johnson at [Gizmodo](#) thinks he should [stop smoking pot](#). I have to admit that I concur, seeing as he's an [NYU](#) student.

Now You Can Stop Slapping Your Forehead

There was *also* some genuinely interesting news in the Mac blogosphere this month, and I don't want to ignore it or make these souls feel marginalized. They deserve credit. Read them!

- Drunken Batman describes and analyzes more or less the entire history of independent development with Cocoa and Carbon in the context of OS X. Unfortunately, the article is controversial from an argumentative standpoint—independent development seems to be stronger now, and it's unclear that a solution to Apple's problem is a port of the Cocoa toolkit to Linux and Windows—but from a historical standpoint it's certainly worth a read. There are some (mildly inflammatory) corrections and clarifications to consider as well. I write about this stuff all the time, and I never knew about three quarters of this history, so you might not either.

- Palm may not, in fact, be abandoning the Mac. My head is swimming with the complexities of this. The Silicon Valley/San Jose Business Journal reports that Palm is really insistent that all it's doing is forcing its users to do what PocketPC users do, which is buy third-party software to sync. Huh. Well, at least it's not pledging to do everything in its power to stop third-party clients from working with Palm (like AOL and OSCAR). But if you're tired of a PDA that actually works and/or really like Windows, HP is running a promotional trade-in for Palm users and PocketMac piggybacked on to it with a discounted license for Palm Switchers.

- John C. Welch advocates liberating iSync from the confines of the iApps' databases. This would mean that rather than demanding that all applications use Address Book for contacts, programs could take a Eudora-like approach in which they suck data out of Address Book but still maintain their own database. Useful and flexible. Very Mac-like, right?

- Evan DiBiase is documenting his expatriation to the Mac and back again at MacAndBack. You'll laugh, you'll cry, you'll shake your fist at The Man for making poor computer users suffer through XP, and then you'll add his XML feed to your newsreader. Kirk McPike chimes in, saying that Windows lacks polish among its

various flaws, and that he still prefers the Mac. Mike Fullerton doesn't think the Mac is at all worthwhile. But fear not, gentle reader: I concur with Kirk's remark that he's clearly confused his opinions with those pesky facts.

- We all know that Word 2004 is out because of that ridiculous Trojan. But what about Word? Well, Rick Schaut says he's finally got styles in Word that don't suck in terms of user interface or concept. Three cheers for that! If only I had $150. Or were gullible enough to download a 100 KB installer. Kirk McPike (again!) notes that even if Word's OS X versions *did* suck, it wouldn't matter since the competition is at least as bad.

- Mac Night Owl argues that the Mac OS today is not fundamentally different in its interface than the first Mac OS, and suggests that Macs, and computers in general, need a completely new interface Has the time come for rethinking our desktop metaphor? Maybe. Should the computer "speak your language"? How do you imagine interfacing with your computer, in a world in which there are no technical limitations, and how would it differ from the present desktop metaphor? I dunno. But it's certainly an interesting question, isn't it?

Well, then. It felt good to end on a positive note, didn't it? Just remember: be skeptical and you will go far in the Mac world. Especially when it comes to 100 KB installers for 400 MB application suites and 3,200 percent markdowns on computer hardware.

Some Offers We Are Not Needing

It's so nice to have all these new friends! Esmerelda recently e-mailed me about a terrific weight loss product. Mary tells me that I can get a college degree—even a Ph.D.—without any "required tests, classes or books!" My pal Sidney is offering an excellent deal on Viagra, and Chauncey—good old Chauncey—reports that thousands of people are switching to smart spam control.

Meanwhile, another Mary and her co-workers Nickolas, Victor, Dwayne, Sergio, Monty, Neil, Bret, Jarrod, Lonnie, Jake, Dallas, Harley, Ernest, Luciano, Noe, and Aureilio were nice enough to take time from their busy schedules to let me know that I can save big money on my software purchases and impress the boss so much that I'll get a promotion.

Who could pass up Adobe Photoshop for $60? And hey, these folks aren't just software salespeople—they're environmentalists. Apparently, they have found that eliminating manuals, registration cards, boxes, and other bothersome landfill from my software order helps save our planet! I commend them all, but none so much as the diligent folks at "eBay Accounts Management" who during a rigorous "update and verification of accounts" discovered that my information is incomplete. Even worse, if my account "is not update to current information within 5 days," I could lose my right to bid and buy. But, no problem! All I have to do, the e-mail informs me, is "go to this link below and fill out the proper information that we are needing…"

Thank goodness Congress is saving us from junk mail. It's just what we are needing. Spam was getting out of control, but the tough new anti-spam act slammed shut the mailbox door. So let's not rest now—how great would it be to have a "do-not-spam" list like the "do-not-call" list that ended all that annoying telemarketing? Call me a foolish dreamer, but it could happen. For now, perhaps the best thing we can do is take the advice of my buddy Chauncey and order his "ultimate" solution to spam. As Chauncey puts it, "you owe it to yourself to try this program, and forward this e-mail to all of your friends who hate Spam or as many people as possible."

My Little Network

We hear a lot these days about digital hubs and networked homes, about kitchen appliances that get together for a chat and then order the groceries, about home media servers and wireless systems that flow digital music and movies from the Internet into flat screen, high-definition video monitors ("TV" is *so* 20th century) all around the house. It's amazing stuff, but still not part of everyday life for most of us. Much more accessible are the small wonders of linking your Mac to an iPod, the Internet and a mobile phone—it's an affordable illustration of how powerful the digital hub concept really is.

Pairing my PowerBook with an iPod and a so-called "next generation" cell phone brought together a variety of hardware devices and software in some truly useful ways. "Useful" is the important word; for the first time, the gee-whiz element of interconnecting devices was less important than the practical applications of my modest network. I'm not on technology's cutting edge here, and that's what makes my unremarkable little network so remarkable. It links off-the-shelf software with some affordable devices and makes all of them even more useful and entertaining *because* they can communicate with each other.

The brain of my network is OS X software and several of its components, including iTunes and iSync. The nervous system is a mix of wired and wireless networks, for the permanent links, and USB and FireWire cables for the elements that come and go from the net. Among other body parts are a DSL connection, a subscription to Apple's dot-mac, and the Web-capable cell phone. The iPod is the heart of my network—its elegant software engineering and industrial design revealing the allure and power of interconnectivity.

Most striking was how the already useful Mac programs—iTunes, Address Book, iSync, and iCal—immediately became integral parts of both the new network and my Mac-using experience. I already used all of them regularly, but now they had impressive new superpowers. iTunes pilots the iPod and Apple's online music store, Address Book and iCal share their information with each other and with both the iPod and the cell phone, iSync keeps the network up-to-date and, in concert with dot-mac, makes my information accessible via the Web. Many of these things were possible before, but now they are everyday events, smoothly performed as they should be. It's easy to see how, just a bit down the road, my network will expand to include home and mobile entertainment components. It's not a matter of if, but of when.

My new network wasn't planned; it began when my wife answered my request for an iPod for my birthday. I wanted it for the usual reasons: to take my iTunes music collection on the road and to use the pod as a portable FireWire hard drive. The opportunity to finally ditch my Handspring Neo was a big factor, too. Like many Mac users, I had grown tired of being a steerage-class passenger of the Palm OS. Handspring (a spin-off of Palm, now merged back in) was only marginally friendlier to Mac users, even though the Mac address and datebook interface had once been Apple's Claris Organizer. iSync made linking a Handspring or Palm PDA to a Mac easier, but the process remained, and remains, annoyingly cumbersome. (By the way, am I the *only one* who thinks the interface for loading Palm software is a mess of unintuitive design and mediocre implementation?) I also realized that scratching text onto a tiny screen with a toothpick stylus wasn't working for me; I could have chiseled words into marble just as quickly. So, near the end, I just gave up entering text altogether, choosing instead to write myself a note on paper the old fashioned way and enter it later in my calendar. Finally, when once-promising news and feature conglomerator AvantGo dropped active Mac support, I dropped the Neo. And I don't miss it.

iSync puts my Address Book and iCal calendars on my iPod in an instant. And if I leave the pod at home, no problem. I still have my Motorola T721 cell phone. It lacks Bluetooth, which would allow wireless syncing, so I bought a USB cable that lets me attach the phone (and a dozen or so other Motorola models) to the Mac's USB port, and now my cell phone works with iSync, too. (The T721 syncs datebook information, phone numbers, and e-mail addresses, but not street addresses or notes; what gets synced varies among cell phone models.) It's worth noting that I didn't have to install any new software in the phone or the Mac—they synced without a hitch on the first try. The Windows version of syncing requires installation of new software on both PC and phone.

The Motorola USB cable included an unexpected bonus: it lets the cell phone be used as a modem. A fairly slow modem, to be sure, but useful in a pinch. Unfortunately, in contrast with syncing, this feature is not always easy to get up and running—you'll need to track down connection info from your service provider to plug into OS X's Network panel along with a modem script tailored to your phone, and they can be hard to find, especially for Mac users. My provider, AT&T Wireless, incorrectly says the Mac does not support the use of my GPRS phone as a modem, and, like several other wireless providers, only offers instructions for configuring a Windows PC. In Windows world, linking and syncing is

usually handled by third-party software sold along with connection cables, so you may need to look for instructions for manual entry of the information. The info you need is not platform-specific, but you will need to figure out what goes where.

After a lot of Web slogging, I found what I needed. But wouldn't it be thoughtful for Apple, which promotes the Motorola USB cable on its iSync Web page, or Motorola, which sells the cable, to spare Mac users all the hassle and offer current and accurate connection information? Neither does.

If you can't find the modem scripts you need, you may find relief in a nifty $12 shareware application from Italian software developer Massimo Valle called GPRS Script Generator. It creates modem scripts tailored to the GPRS cell phones of more than 200 service providers around the world. GPRS, which stands for General Packet Radio System, is a popular and speedy (for cell phones) protocol for transferring data over second generation cell phones. Valle says it's notoriously difficult for a non-expert to develop the essential GPRS modem scripts, so he created GPRS Script Generator, which compiles custom scripts from a database of information.

Using a GPRS phone as a modem is an odd experience which Valle says is akin to using a slow, always-on DSL connection: your phone doesn't "dial" to connect as a traditional modem does—remember, GPRS is a data-only radio service. Instead, using OS X's Internet Connect, the phone silently opens a channel to your service provider. Keep in mind that GPRS is not a dial-up protocol so you can't use it to connect to a standard ISP, such as EarthLink, and usage fees are based on how much data you send back and forth, not on how many minutes you are logged in. It's all very peculiar.

I don't expect to use a cell phone connection to the Internet very often, but it's nice to know it's there as a backup. And fiddling with GPRS is geekish fun—an opportunity to wrap the brain around a new technology. But the best thing about GPRS and Mototola's USB cable is that they added a cell phone to my burgeoning little network. The phone isn't important—what matters is the illustration that a communications device bought for other reasons and uses can fit so easily and seamlessly into my Mac network. It's getting

easier and easier to have their information and entertainment we want, when we want it, and where we want it. And isn't that the point of digital hubs and networking? My little network is coming along nicely.

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Distributed Blender Rendering with Xgrid

In January 2004, Apple released Xgrid as a distributed computing solution for use with Macs running OS X. Xgrid uses a Mac interface and Rendezvous networking to provide an easy-to-use solution for cluster computing. Xgrid offers the ability to easily harness the unused resources in Mac OS X environments, including businesses, science and research institutions, educational computer labs, and even wasted computing power when office machines are going unused.

Since Xgrid's release, many people have been hoping for some method to harness the distributed computing power offered by this technology within their "day-to-day" work. Some of the more frequent questions have been about applying Xgrid to 3D rendering, a natural application for distributed computing because of the processor-intensive nature of 3D software.

Blender is a powerful open-source (and free) 3D application available for many platforms, and used by many professionals and hobbyists around the world. You can read more about Blender in my ATPM review, but please note that since the review was written in January Blender has undergone further development. Blender 2.33a now includes raytracing, ambient occlusion (for global illumination), YafRay integration, and cellular procedural textures—just to name a few of the new features. Because Blender can be easily accessed from the command line, it is well suited for use with Xgrid as a solution for network rendering.

Background

One advantage to Xgrid is its flexibility in harnessing processing resources. The agent computers can be fully dedicated to the cluster, or only join the cluster when free resources are available.

The second option is one of the obvious benefits to the technology. An agent computer might be used as a workstation during the day, but during off-hours (during breaks or at night) the computing resources become available to the grid.

Another advantage to the Xgrid solution is that once the agent is configured to participate in a cluster, no advanced configuration or setup is needed by other users at the agent end to participate in the grid. The grid controller ensures that the proper files are distributed when the task starts.

Unlike some other distributed rendering solutions, Xgrid allows the controller machine to also act as an agent, meaning a grid consisting of only two machines will allow both computers to contribute to processing. This makes Xgrid a great solution for small businesses or hobbyists with Macs who are interested in getting the most from their limited computing resources. Obviously, more computers means more computing power, but only two computers are necessary for performance gains.

Apple provides an overview of Xgrid with the Guide for Xgrid Technology Preview 2 (PDF). This document includes a description of the technology with a working explanation, installation instructions, and basic instructions for creating custom plug-ins.

Xgrid: High Performance Computing for the Rest of Us is an informative article on the Apple Web site. One of the related resources discussed in this article is Xgrid example: Parallel graphics rendering in POVray, by Dr. Daniel Cote. This POVray article provided the information that suggested Xgrid could be used with Blender.

The above resources are suggested reading for a better understanding of the technologies.

This tutorial would not be possible without the help and feedback from the Xgrid Mailing List and specific contributions from Dr. Charles Parnot at Stanford University and James Reynolds at the University of Utah. Many thanks for their help.

Installation

Before using Xgrid (or any distributed computing), your computers must be properly networked. The network may be wired Ethernet or AirPort (wireless), although a faster network connection will result in better Xgrid performance.

Download the Xgrid Technology Preview 2 from the Apple Web site. Installation is simple; just open the disk image and launch the installer. Use the same installer on all computers that will be participating the grid.

Firewall Settings

It is important to allow the computing grid to communicate properly over the network. Because OS X's built-in firewall may prevent communication between Macs in the grid, it is important to adjust the firewall settings.

- Open System Preferences.

- Click on the "Sharing" icon in "Internet & Network."

- Click on the "Firewall" tab.

- Click on "New."

- Add the following settings:

Specify a port on which you would like to receive networking traffic. Other ports can be specified by selecting 'Other' in the Port Name popup. Then enter a the port name and a number (or a range or series of port numbers) along with a description.

Port Name: Other

Port Number, Range or Series: 4111–4120, 49200–49500

Description: Xgrid

Cancel   OK

The new Xgrid firewall setting should be added to the preferences of each computer on the grid. The computer may need to be restarted before the changes take effect.

It is also important that computers on the network have unique network names. If two or more computers share the same network name on the network, Xgrid may not be able to properly recognize them. This setting is found near the top of the window in the Sharing Pane.
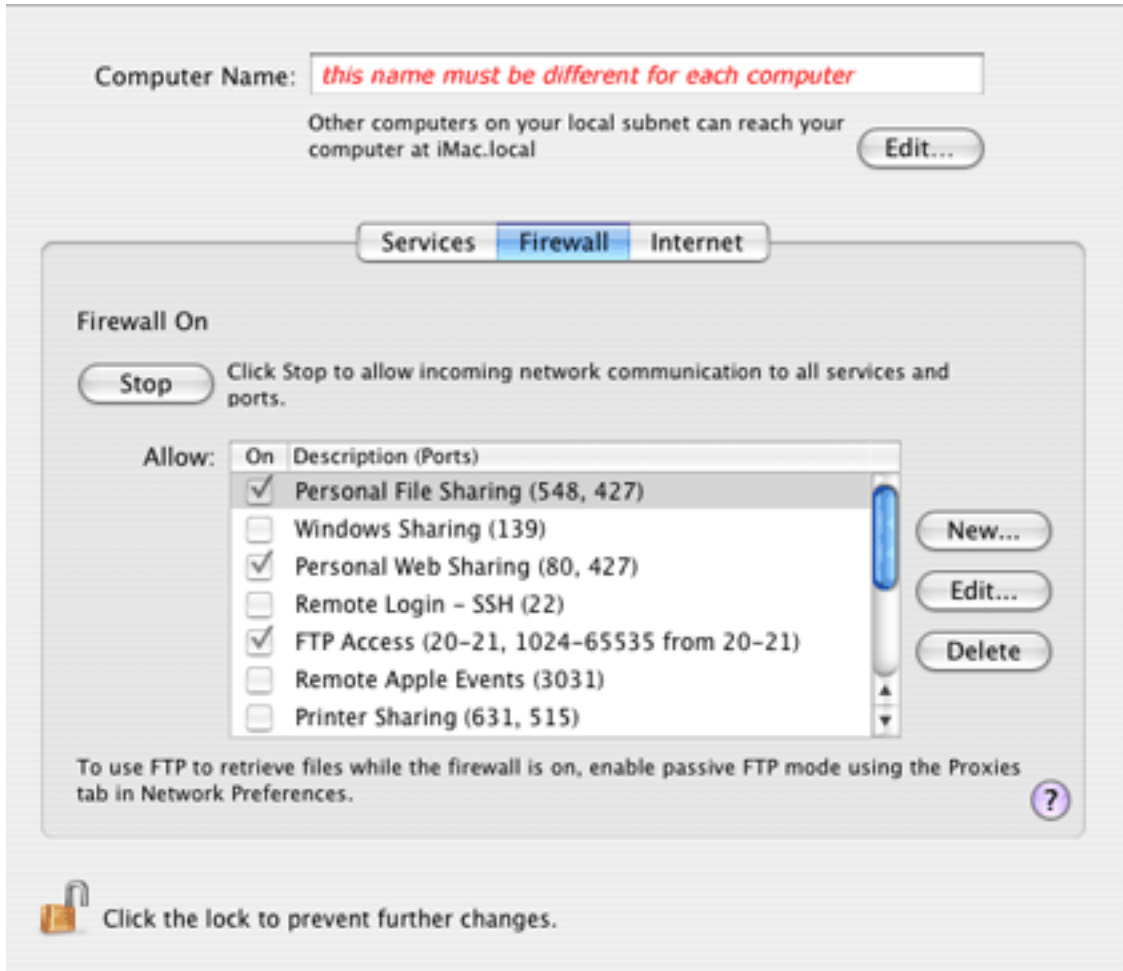
Note: In some cases, changing the computer's network name may not be enough. When each computer has a unique network name, but the nodes still aren't appearing in Xgrid, the cause may be from computers having the same account name. For example: to make things easiest for network access, people may use the same admin account with the same "name" (Andrew Kator), same login (akator), and same password. This allows them to easily access computers over the network will full permissions. In our setup, when the

active account names were both "Andrew Kator," the network node was not recognized by Xgrid even when the computers had unique network names. When one account name was changed from "Andrew Kator" to "iBook" the node appeared. The actual login and password did not need to be changed.

Setup the Controller

Open System Preferences and choose the Xgrid Preferences Pane. Choose the "Controller" tab and click "Start" to allow the computer to administrate and submit jobs to the grid. Only one computer needs to be a controller for Xgrid to work.
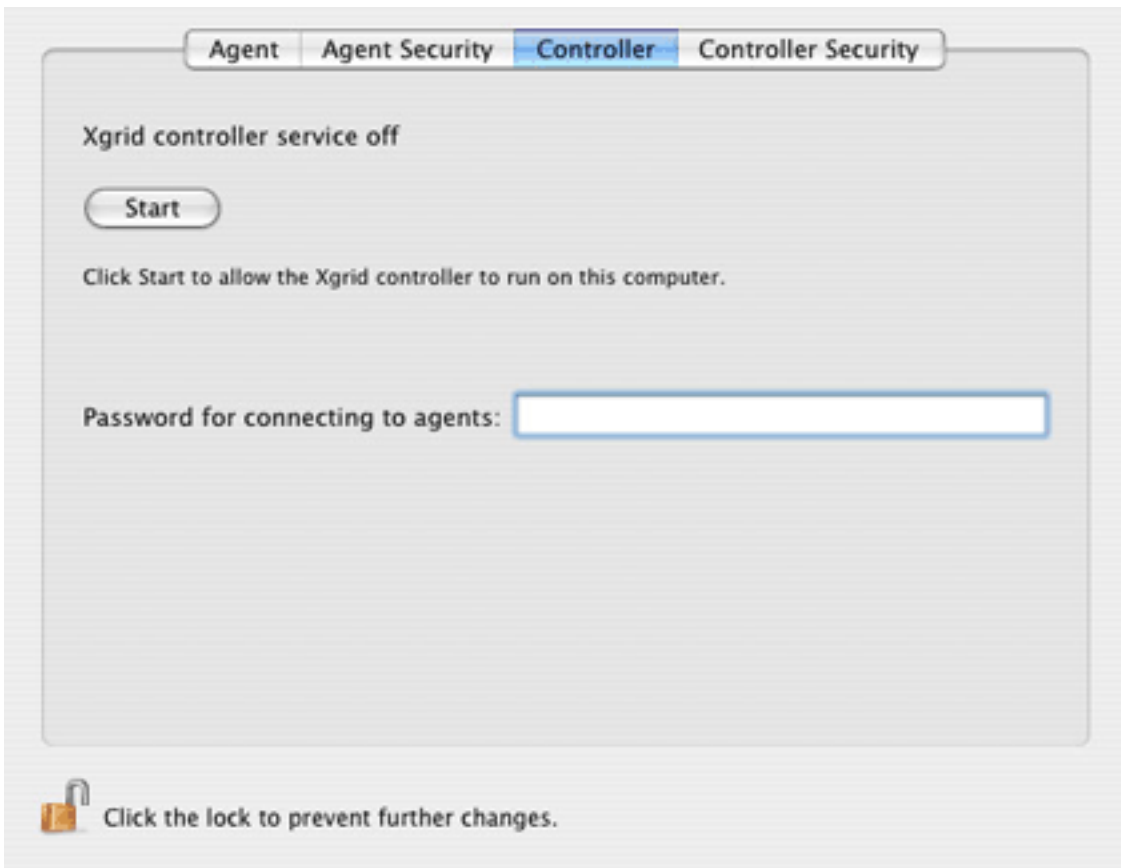
Setup the Agents

Setting up Xgrid agents is similar to setting up a controller, except click on the "Agent" tab in the Xgrid preferences. Click "Start" to make the computer to join the cluster.
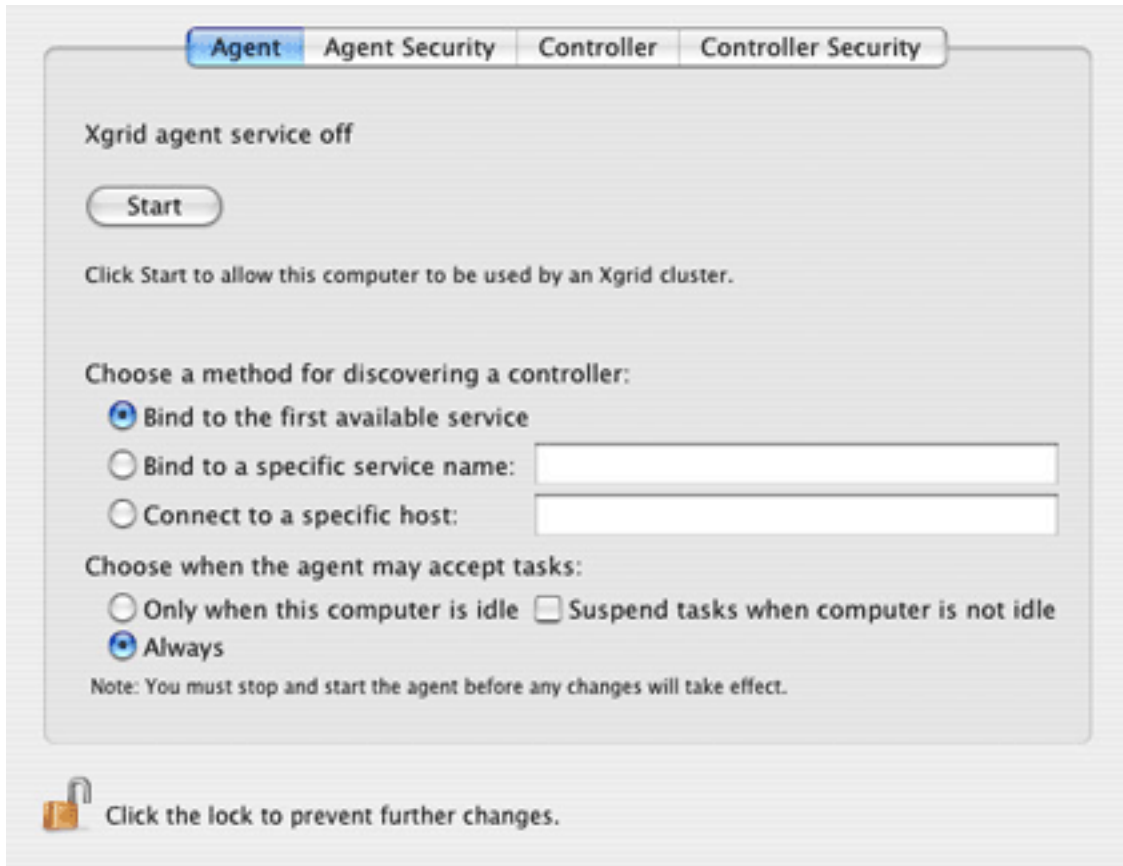
Specific services and hosts (usually the computer name on the network) can be added, but with the options shown above, the agent will automatically find a controller on the local network.

The settings on the bottom dictate how the agent's processing will be used. "Always" dedicates processing to the grid and is most effective if the computer will not be used for other "normal" work. This setting ensures the most processing power will be available to the grid, but with a performance slowdown if the computer is used for other jobs. If the computer is going to be used for daily work, the other task settings are more appropriate.

The Xgrid Screensaver can be activated in the Desktop pane in System Preferences. The Xgrid Screensaver is not necessary for agents to work, but it does offer visual feedback about when the agent is working with the grid. When the screensaver is running, the computer is dedicated to the cluster. As soon as the mouse is moved and the screensaver turns off, the agent's tasks are suspended until the computer becomes idle again. This is similar to other distributed computing solutions, such as SETI@Home and Folding@Home.

Testing Xgrid

Now the fun begins! Before configuring Xgrid to work with Blender, it is important to make sure things are running smoothly. In our simple testing setup, we have just two computers: a G4 iMac and a G3 iBook wirelessly networked using AirPort. Because we only have two computers, the iMac will be running as the controller, client, and as an agent. The iBook will only be used as an agent.

To begin harnessing the grid, launch Xgrid in the Applications folder. The computer running the Xgrid application will become the client, in this case the iMac. The following dialog appears, with your options marked in red:

"Start Local Service" is a demonstration mode, and is not for connecting to the grid. Click "Connect" instead. A "New Job" window will appear:
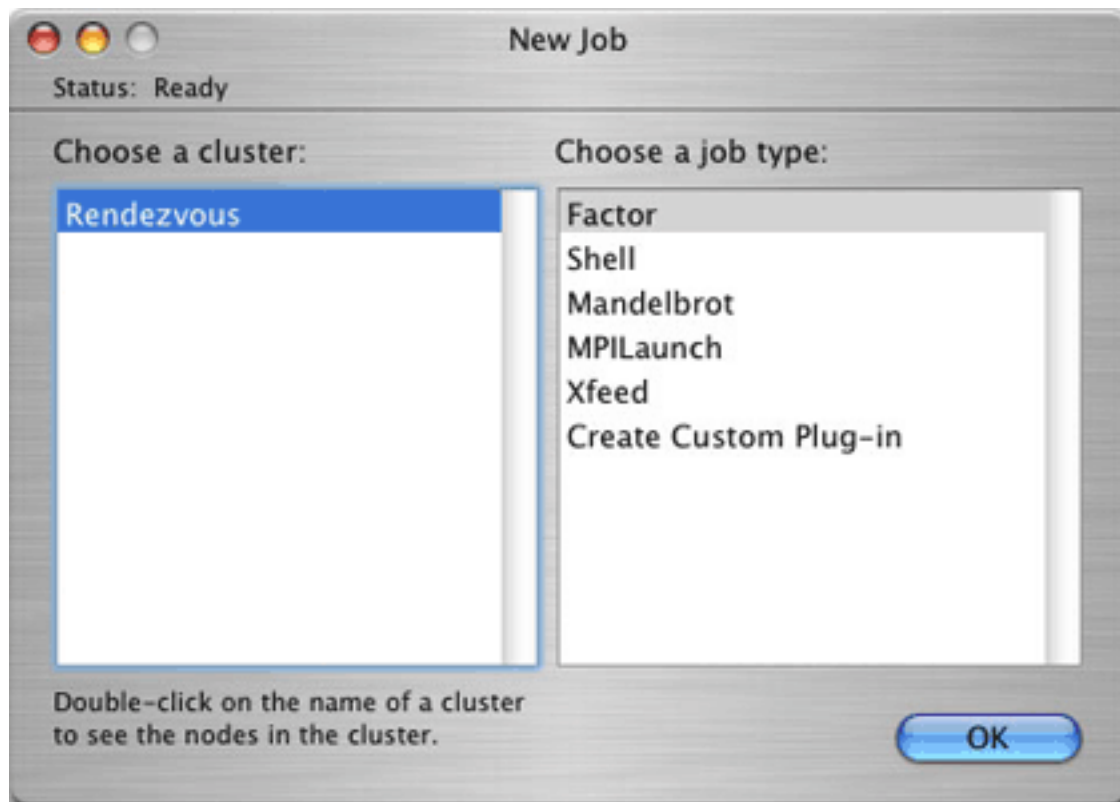
To make sure the cluster nodes are all connected properly, double-click on the cluster name (in this case, "Rendezvous"). If everything is set up properly, the agent computers will be listed.
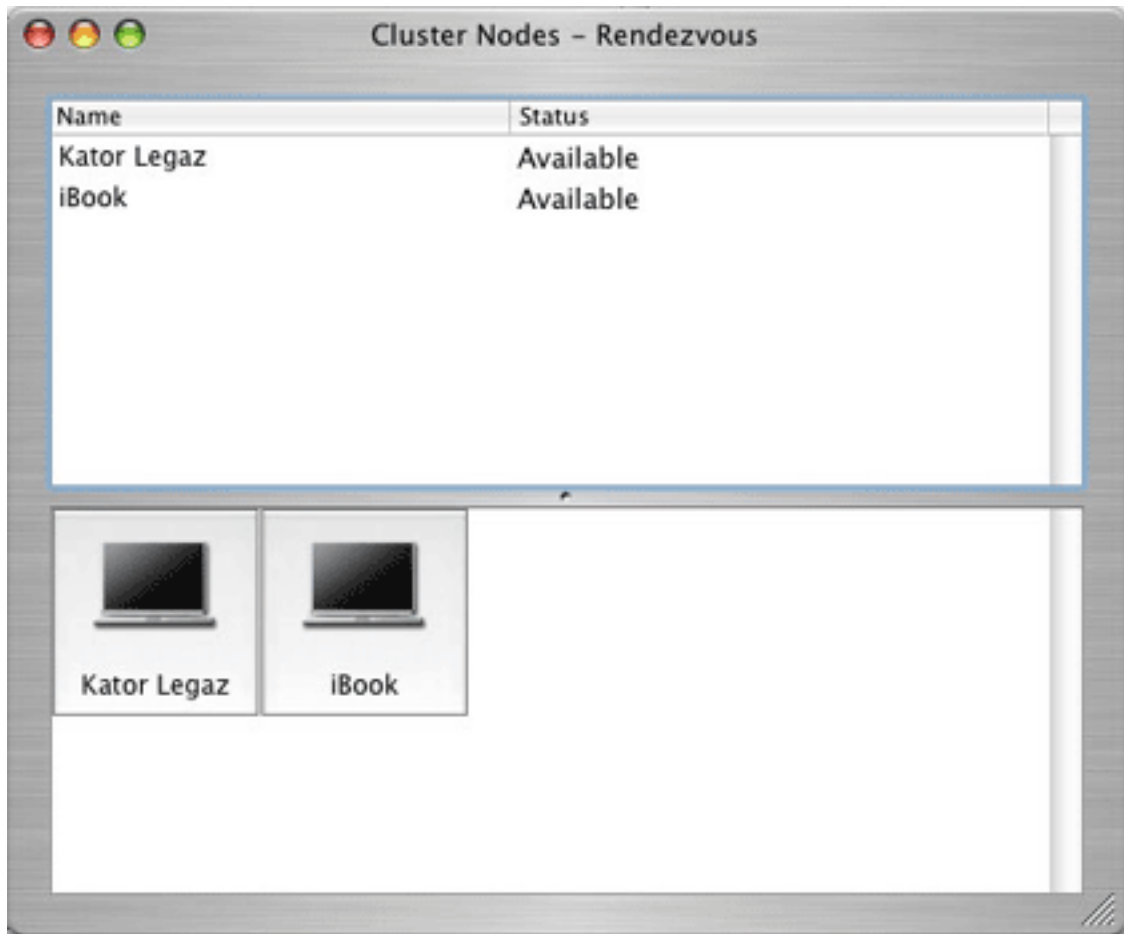
If all grid agents appear, things are set up correctly. If not, retrace your steps, correct the problem, and try again.

Close the "Cluster Nodes" window and choose "Mandelbrot" from the list of jobs. Xgrid will now begin processing a Mandelbrot fractal, with a "tachometer" showing grid performance. Even the basic two-node setup we used for this article showed a 25% performance gain with the cluster compared to using the iMac alone…and that is with a three-year-old iBook over a wireless network!

Now that Xgrid has been tested, we can configure Blender and Xgrid to work together.

Xgrid Custom Plug-in for Blender

On the client computer (the one running the Xgrid application), go to the "New Job" window and select "Create Custom Plug-in."
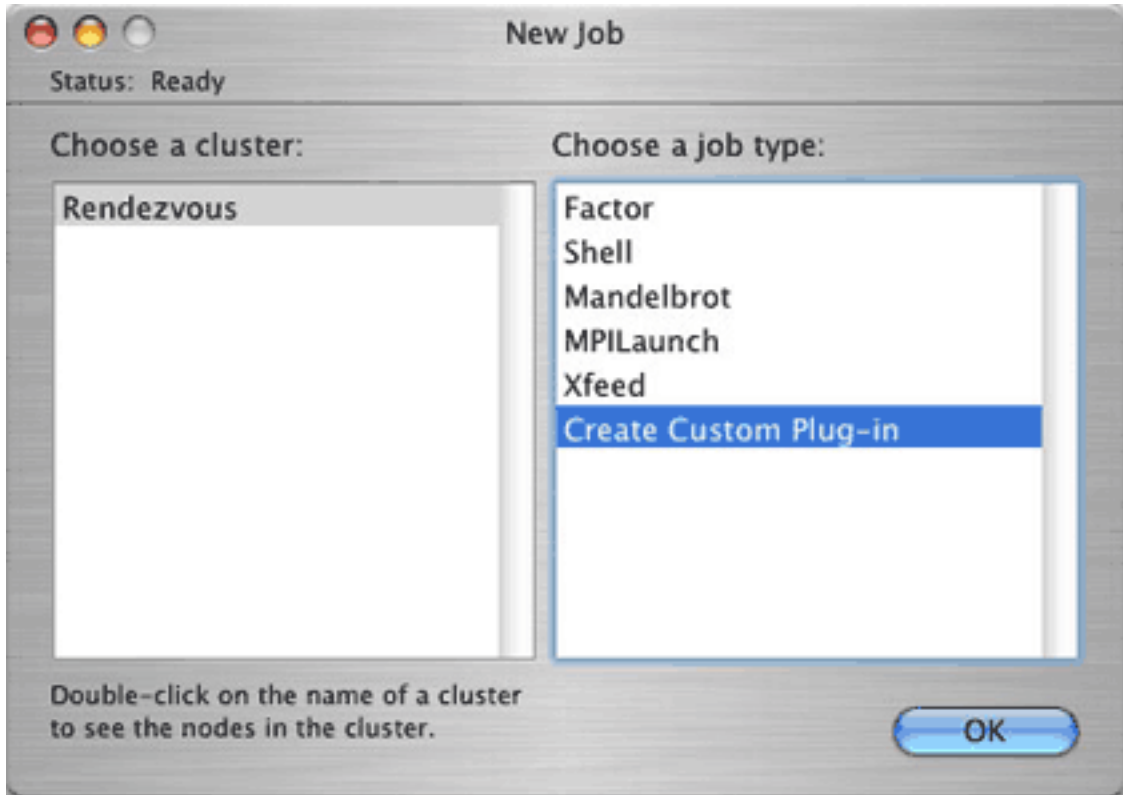
The Custom Plug-in window will appear.

This plug-in specifies how the commands are fed to the computers in the grid. Follow the steps below using the above image as a guide:

Plug-in Name:	We chose **Blender**, but you can give the plug-in another name if you want.

Command:	Assuming you are like most people and you have the Blender application located within the Applications folder, this line should appear similar to this: **/Applications/blender/blender.app/Contents/Mac OS/ blender** This means, "look in the Applications folder for the folder named blender and look inside the blender.app package for the blender command." If you have Blender in another location, you must change the path appropriately. If you use the "Choose" button to find the Blender application on your computer, make sure to add **/ Contents/Mac OS/blender** at the end of the path.
Argument 1:	LITERAL, **-b** This tells Blender to render in the background, without the GUI.
Argument 2:	FILE, (**where your .blend model is located**) It is easiest to use the "Set" button to visually find your file with a dialog box. Make sure your model is set to render still images and not movies.
Argument 3:	LITERAL, **-f** Render the frame and save it.
Argument 4:	RANGE, from (**start frame**) to (**end frame**) by **1** This allows Xgrid to automatically instruct the agents which frame to render, moving to the next frame each time a job is finished.

Click "Create New Plug-in" and the information will be saved. Each time you use Xgrid again, the "Blender" plug-in will appear in the job type list. A new file and a different range of frames can be chosen each time.

It is only necessary to have Blender installed on the client computer (the one running the Xgrid application). Xgrid will distribute only the necessary files and segments of the application to the agents for rendering (it's a good thing Blender is so small).

More information on Blender's command line options is available from the Blender Web site. While the Blender GUI allows for "Parts Rendering," meaning that an image can be split into sections, this feature is not currently available from the command line. Because there is no command-line control of segmenting single frames, the Xgrid rendering solution is currently only useful for animation rendering where whole frames can be individually rendered by agents in the cluster.

Gathering the Output

In theory, the "Destination" option in the Custom Plug-in is where the final rendered images should be saved upon job completion. Unfortunately (at least for Blender), this does not always work.

If your images do not appear in the location specified, the images are saved in the /tmp/ directory on the hard drive of each agent machine. Normally this folder is invisible in Finder windows, so to access it choose the root directory of your hard drive and "Go to folder…" from the Go menu in the Finder. Enter /tmp/ in the dialog, and the directory appears. The images are numbered by frame, so they should be easy to find.

Results and Suggestions

It is important to note that with each render job, Xgrid distributes the necessary files to each agent in the grid. Because this task takes time, it cuts into any rendering speed improvements seen from processing simple or extremely small animations. Using Xgrid to render an animation consisting of only 10 low-resolution frames may not demonstrate significant speed improvements over rendering on a single computer. Slower network connections will also negatively affect Xgrid performance, so expect an AirPort grid to be slower than an AirPort Extreme or Ethernet grid.

With that said, obviously the computers and network used to discover and test the solutions in this article are not optimum for measuring performance—however, with our iMac/iBook/Airport grid we were able to witness a 10–21% decrease in rendering times over using the iMac alone. The models we used for these tests are available for private and educational use.

The performance improvements were most significant when longer, more complicated animations were used. A 21% speed improvement may not seem like much, but when creating animation, any improvement is welcome. These results are even more exciting when we have not spent any additional money, but instead harnessed existing resources that were going untapped. Because of the nature of distributed computing, all Xgrid results are scalable—if we added another G4 or a G5 to the grid, processing power would improve drastically.

For those of us using Blender for animation on Macs, Xgrid offers easy, effective, and reliable distributed rendering. For those without Macs, don't give up hope—there is discussion that it would not be difficult for other platforms to use Xgrid networks. Because Xgrid is based on open-source technology, it is possible that someone (maybe even Apple) will write software to include other platforms.

There is no reason why similar Xgrid solutions cannot be applied to other software that has command line access. The Custom Plug-in settings will be different for other applications, so it is important to research the software documentation for specific solutions.

iTrolls NO. 121 "CUPERTINO TIGERS" By GMx

CUPERTINO Tigers

OS 10.4

The Newest Team Is About To Take The Field

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Extras: Desktop Pictures

Puerto Rico

Puerto Rico

These desktop pictures were taken by ATPM Web Editor Lee Bennett during his April 2004 vacation to Puerto Rico. The images are of various flora, fauna, and constructs from numerous locations throughout the commonwealth. Additional photos from the trip are on Lee's personal online album. All images were taken with an Olympus C-5050. Resampling and retouching were performed with Adobe Photoshop 8.0.

Previous Months' Desktop Pictures

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

Downloading all the Pictures at Once

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

Contributing Your Own Desktop Pictures

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

Placing Desktop Pictures

Mac OS X 10.3.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 popup menu, select the desktop pictures folder you want to use.

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

Mac OS X 10.0.x

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

Mac OS 8.5–9.x

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

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

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

Mac OS 8.0 and 8.1

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

Random Desktop Pictures

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

DeskPicture

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

Review: Apple Confidential 2.0 (book)

by Brooke Smith, bsmith@atpm.com

Author: Owen Linzmayer
Publisher: No Starch Press
Price: $20
Trial: Excerpts (first two pages of each chapter)

ATPM RATINGS
VERY NICE

Overview

Journalist Owen Linzmayer, who wrote *Apple Confidential: The Real Story of Apple Computer, Inc.*, in 1999, has delivered a second edition: *Apple Confidential 2.0: The Definitive History of the World's Most Colorful Company*. With more pictures and over 60 pages of new info, bringing you up to date on iLife, iPod, Pixar, and those famous Switcher commercials (tales of people switching from a PC to a Mac), *Apple Confidential 2.0* provides more juicy tidbits on Apple's even juicier history.

Layout and Organization

The 304 pages of *Apple Confidential 2.0* are accompanied by an index as well as a bibliography of other books on the computer industry. The book is divided into 25 chapters, with each chapter providing a self-contained part of Apple's history: the computers, the highs, the lows, the people involved. Woz's Wanderings, What Jobs Did NeXT, The Clone Quandary, and The Making of Macintosh are just a few of the chapter titles. The chapters are not numbered (they weren't in the first edition, either), which may or may not have been done on purpose. As Linzmayer says in his introduction: "Because it does not follow a strict chronological format, *Apple Confidential* need not be read in its entirety from front to back." No need for numbers with this kind of suggestion.

The chapters are relatively short (about five to 10 pages each) and encompass one half of the page lengthwise. There is usually a schematic time line at the end of each chapter, too, and the book is full of classic photos (the original Apple logo design, Apple ads, the Apple III, Steve Jobs and Steve Wozniak with long hair!). Quotations from Apple's employees and Mac journalists (cited from various other books and magazines) and the odd riddle take up the other half of the page. This layout provides lots of white space and gives the impression of an approachable and fun book, as opposed to a fusty, word-heavy history text.

Observations and Opinions

The quotes Linzmayer uses provide the reader with extra info that she can read if time warrants. They add to the experience, and, not to mention, give an idea of the character of some of the key players ("I had given Steve [Jobs] greater power than he had ever had and I had created a monster." John Sculley *Odyssey*, p.240). These quotes are like sidebars, giving the book a magazine feel. Sometimes I'd read them; other times I'd just skip them.

Because you don't have to read the book straight through, you can read a bit, leave it for a few weeks, and then pick it up again and not have to worry "where you were" or "what happened before this chapter." And with this more relaxed approach, you're not plowing through an historical narrative, which can get bogged down with places and dates.

Strengths

First and foremost, Linzmayer is an excellent writer. He uses a very conversational, casual style. I found the book to be an easy read, but don't misunderstand; Linzmayer is thorough. He packs in a lot of information without overloading your system.

Another strength is the number of pictures throughout the book. I like to see whom I'm reading about. Yes, I can see what Steve Jobs looks like if I watch the keynote at Macworld Expo, but I want to see him in his early days, with long hair! Plus, it only makes sense that if you're reading about the history of a computer company, you'd want to see pictures of the machines themselves. All the description in the world isn't going to paint a mental picture in my head of the Lisa or the Apple III; let's see a photo.

Finally, unlike the first edition, *Apple Confidential 2.0* cross-references the other chapters in the book. For example, when there is a reference to the "1984" commercial that aired during the Super Bowl in January of '84, the title of the chapter ("The Greatest Commercial That Almost Never Aired") follows in brackets so you can skip to that chapter for more info. I didn't do this, but it provides the reader with information on where to find out about that particular point.

Weaknesses

Perhaps because the book is not meant to be read from front to back, I think Linzmayer sometimes assumes that readers know a little bit about Apple's history. Some of the chapter titles are obscure (From Diesel to Doctor; The Strangest Bedfellow of All; From Xerox, with Love) and readers may not know what the chapter is referring to at first glance. I'd suggest that someone with little or no Apple history may prefer to read a more linear book (*Insanely Great* by Steven Levy, for example) before jumping into *Apple Confidential*.

Summary

There's nothing like juicy tidbits of info to add to the history of Apple Computer. Linzmayer has done just that in the second edition. His easy-to-read style will keep you turning the pages. This is a great supplement for anyone who is familiar with Apple's history. And you don't have to read it in chapter order!

Review: Hardware Hacking Projects for Geeks (book)

by Chris Lawson, clawson@atpm.com

Author: Scott Fullam
Publisher: O'Reilly and Associates
Price: $30 (list); $21 (Amazon)
Trial: Table of Contents, Sample Chapters, and Index.

Overview

Hardware Hacking Projects for Geeks is a guide to several interesting, if not entirely practical, electronics projects for the casual to advanced tinkerer. As the title proclaims, it's written primarily for geeks—that is, people with experience in the field of electronics or electrical engineering—but novices will find it an entertaining and informative read as well.

Layout and Organization

The 331-page book, measuring 7" by 9", is divided into 15 chapters and five appendices, which are organized into three sections. The table of contents and comprehensive index are available online.

Observations and Opinions

Part I, "Basic Hacks, Tools, and Techniques," includes a cogent overview of basic electronics. While students of the field will find the overview redundant, anyone not working with electronics as a career will find it a useful refresher or introduction to the subject. The six chapters in this section include such classic hacks as the MacQuarium and the Pringles-Can WiFi antenna, along with the more-mundane concepts of a portable laptop power supply and water-cooling your PC. The chapter on hacking a Furby to speak other phrases is very entertaining, and the MacQuarium chapter is by far the most-detailed and best instructional manual for building a MacQuarium that this reviewer (builder of two MacQuaria himself) has ever seen. If you want to build a MacQuarium, find a copy of this book.

Part II, "Advanced Hacks, Tools, and Techniques," includes the remaining nine chapters and a thorough primer on identifying electronic parts such as resistors, capacitors, transistors, and ICs. The author then launches into very well-detailed explanations of such intriguing projects as the building-sized Pong game, a "Cubicle Intrusion Detection System" (developed by the author when he worked at Apple), the Internet-Enabled Toaster and Coffee Maker, a home arcade machine, and your very own spook-style "remote object tracker" (think Enemy of the State, but not small enough to fit inside a shoe heel).

Part III includes the five appendices: a brief guide to electronic schematic software; an excellent, if brief, overview of electronic communication; recommendations for microcontroller boards; a thorough outline of power sources (batteries, AC, etc.); and a short list of other sources that the amateur hardware hacker may find useful.

This is not a book lacking in detail. Each project is very thoroughly documented, far in excess of what most of us in the hardware hacking field are used to. This makes the book particularly attractive as an introduction to the art of the hack, but in no way does it take away from the book's utility to an advanced hacker. It has often been said that the motivation behind a hacker is laziness: why do for yourself what a machine could do for you? In keeping with that tradition, a true hacker will enjoy the fact that Scott Fullam has taken the trouble to document and explain these hacks to such a thorough extent, obviating the need to spend hours on Google tracking down all the obscure "pieces" of a hack.

Strengths

- Detailed.
- Well-organized.
- Enjoyable and useful regardless of experience.

Weaknesses

- No Volume 2 (yet).

Summary

This is an entertaining and informative read, and an eminently useful reference manual for anyone interested in accomplishing any of the included projects.

Review: iStumbler 86

by Wes Meltzer, wmeltzer@atpm.com

Developer: istumbler.net
Price: free (BSD license)
**Requirements:** AirPort, Mac OS X 10.3

I've always tried to avoid being that geek with the wireless network–sensing keychain. I spend a *lot* of time with my 15" Titanium PowerBook, and when I'm in an airport bar or a downtown cafe it's nice to have Internet access, but unfortunately I don't always know whether there's an open wireless network available.

Enter iStumbler, stage left.

It is not part of some mega-suite that does lots of neat things. It does one thing, and one thing only: it seeks out and finds wireless networks for Mac OS X users, informs you of their status and signal strength, and, if you want, joins them for you.

Note that this is not quite the same as using the AirPort status menu, insofar as it scans, gives a more useful signal readout, and will sometimes show networks not visible under the AirPort menu.

Aside from one presumably easy-to-fix but frustrating flaw, it performs all of its functions supremely well and reliably. So I can avoid being "that guy with the keychain." Unfortunately, that flaw is accompanied by some user interface decisions and a lack of documentation that show it needs some polish yet before it can be useful except as a quick network-finder.
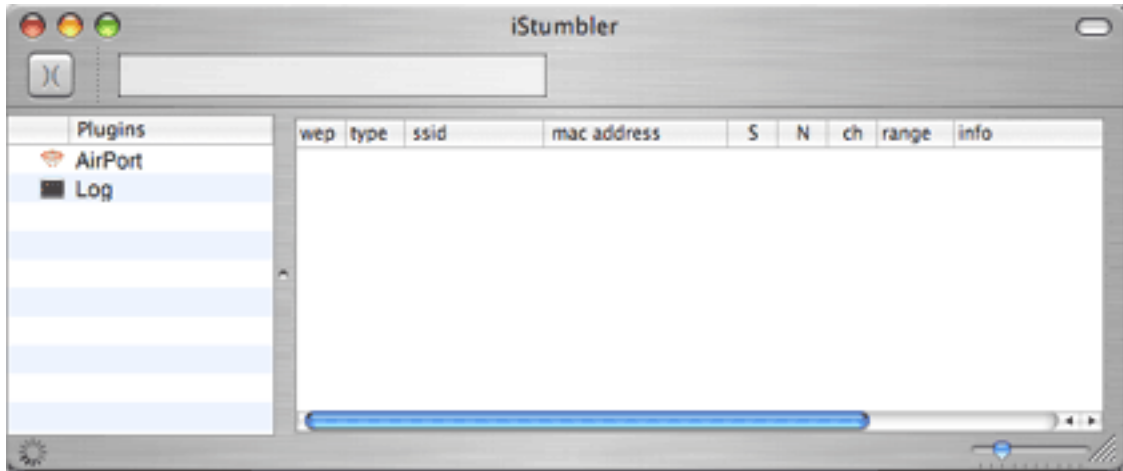

iStumbler's main window, with no networks visible.

The main window (see picture) has room for lots of useful information about the network you're attempting to join. Unfortunately, I have not been able to figure out what some of them do, as I have yet to see any information included in them (for instance, "location").
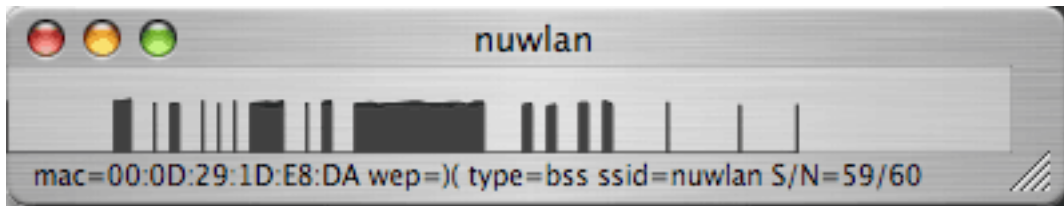
There's also room for expansion in the form of other plug-ins; at present, there is a GPS-receiver module also available. As I don't own a GPS receiver of any kind, I was unable to test it, but the documentation on the Web site suggests that it should work just fine.
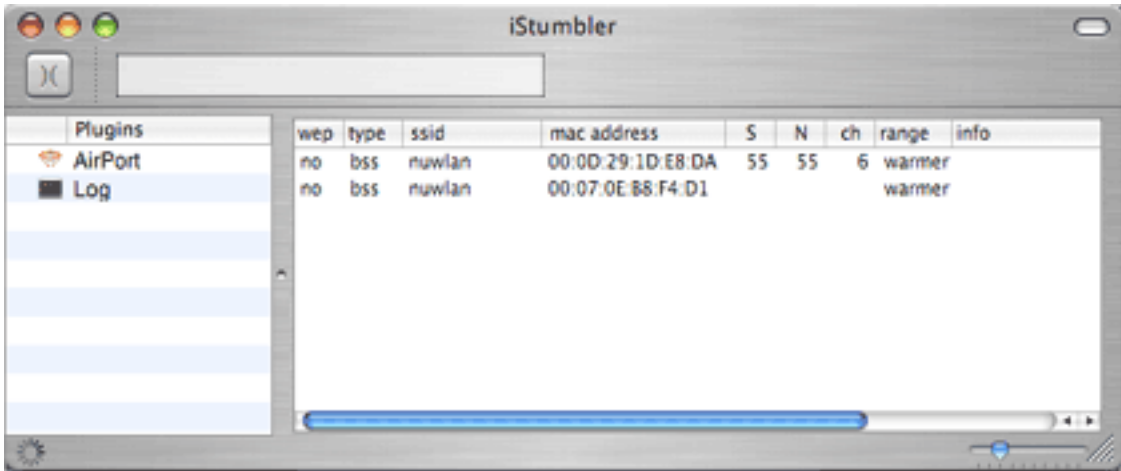
iStumbler's main window, with networks visible.
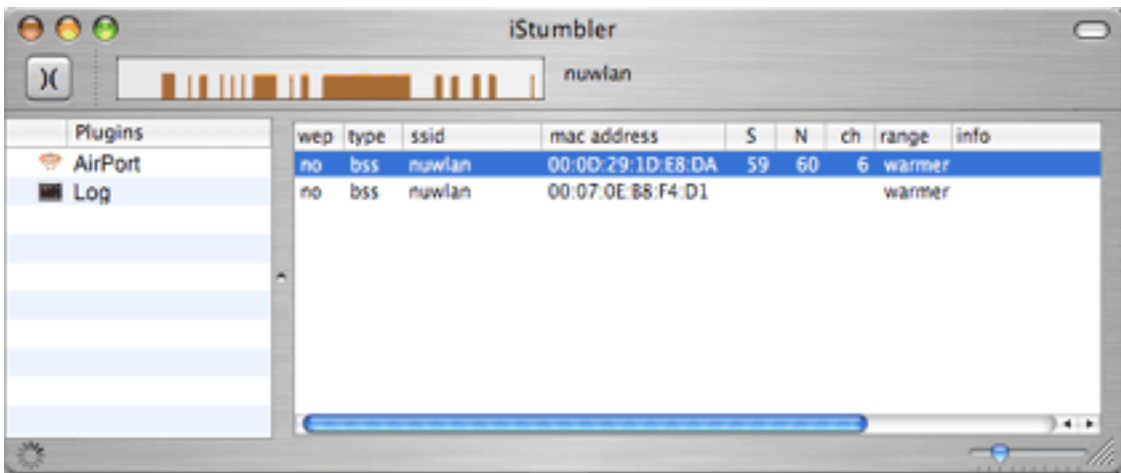
iStumbler's main window, after joining a network.

iStumbler's connection monitor.

Note that there is plenty of useful information available in the main window when there is a network to be found: whether WEP is in use or not, if "yes" then what type, the network's SSID, the router's MAC address, the channel, and other information. The documentation does not say what "S" and "N" are, and I was unable to find out otherwise. (I'm sure an e-mail to the developer could resolve the question, but that demonstrates the lack of polish I mentioned a moment ago.)

Once you join a network, it also shows you a signal strength graph of the network over time. The graph isn't configurable in the preferences, but I imagine the time interval will be in a future version, as that'd be helpful. iStumbler will also pop up a connection window. The preference for changing the transparency of the window didn't work, but I was able to use the window in its fully opaque state.

The network information readout became quite useful when I was at a cafe and discovered two wireless networks. The system AirPort menu could not tell me anything about the networks, but iStumbler told me which one was open and what the signal was like. It uses a descriptive and relative measure ("warmer", "cooler," etc.) for strength of signal; I am undecided as to whether this makes sense or not, being used to percentage strength.

Just like the signal strength metaphor, iStumbler's less-than-fantastic interface sometimes gets in the way of more meaningful functionality. For instance, the Join button's icon is the warchalking symbol for "open network," which is a tad…odd, to say the least, as the two aren't quite the same thing. There is a slider in the lower right that's not documented anywhere and which has no apparent function; it seems to lack a programming hook in the nib file, and to add insult to injury it has no tooltip either. And, of course, iStumbler uses a metal window, which I think represents a violation of the HIG.

To give it the benefit of the doubt, iStumbler does its job quite well for the mythical power user who already knows lots about wireless networking. Unfortunately, I know a fair bit and I don't think I have any idea what some of it does, defying the open-source credo that a user interface should at least be obvious to someone who knows what he's doing.

There were some other minor problems I experienced while using iStumbler, some places where a little polish was still needed, in addition to one major flaw. I was unable to consistently register with a network using the Join button, and yet I never had any trouble when using the system menu. The Log plug-in doesn't appear to do anything useful, as far as I can tell, and not all of the interface elements line up, something a minor nib hack could fix easily.

Moreover, each plug-in has its own preferences, which would be perfectly reasonable except that which plug-in's Preferences window is brought up depends on which plug-in is selected in the main window. That's a surprising behavior; only as I was taking the screen shots for this review did I discover that particular bug (or "feature").

Most egregious were the Auto Select Networks and Auto Join Networks features. I never could figure out just what Auto Select did on its own, but in combination with Auto Join, it consistently managed to drop my connection and then crash my AirPort driver so that the card stopped responding until a reboot. Turning that off seemed to fix the problem.
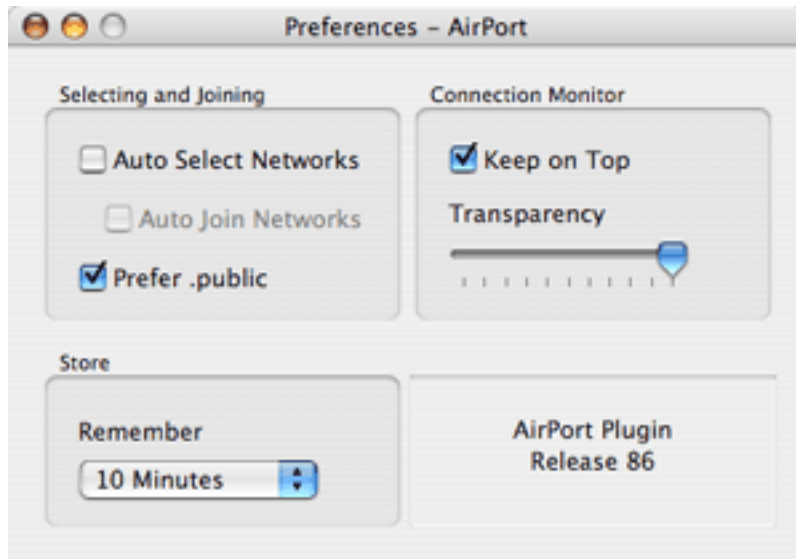
iStumbler's AirPort tool preferences.

It's a shame that iStumbler still suffers from some truly painful interface decisions, because it's a powerful tool and does exactly what it claims to. As it's an open source project, I'm working on a new interface for it that should perform precisely the same functions without the shortfalls that are bothering me.

At any rate, if what you want is a quick window into all the available wireless networks, don't mind a questionable interface, and don't want to feel like the geek with the keychain WiFi network finder, iStumbler may be the perfect tool for you. It can tell you everything you want to know about the networks, including the channel and SSID, and it can even join the network for you.

Hopefully iStumbler become more polish before long, and then I can recommend it unequivocally; for the moment, if you want something a little simpler, suck it up and get the keychain.

Review: Mariner Write 3.6

by Paul Fatula, pfatula@atpm.com

Developer: Mariner Software
Price: $80 (boxed); $70 (download)
Requirements: G3-based Mac with Mac OS 8.6 or Mac OS X
**Trial:** Fully-featured (30 days)

When I first started using Mac OS X, I couldn't find a satisfactory word processor. I had been using Nisus Writer on OS 9, but Nisus Writer Express 1.0, when it finally arrived, proved a terrible disappointment. The obvious choice, Microsoft Word, was painfully bloated and complicated to use. While I'm sure it's chock full o' features, the most important feature for any program is that it not get in the way of whatever work I'm trying to do. I eventually found myself doing all my writing in BBEdit and pasting the document into another application to add formatting later, if necessary. Not pleasant, but it seemed the best I could do.

Mariner's answer to Excel, a spreadsheet program called Calc, got me out of a messy situation once before, when for some reason, which I no longer remember, I needed to work with more columns than Excel could handle. I don't have a lot of familiarity with spreadsheet programs, but Calc let me do what I needed to do with a minimum of fuss. So when I heard about Mariner Write 3.6, I decided to give it a shot.

Basics

Mariner Write, as a word processor, does what you'd expect a word processor to do: style sheets, footnotes, thesaurus, WYSIWYG font menu, scalable in-line and floating graphics, multi-column support, insertable tables…just to name a few features. The feature set is

well-chosen. The point is to let you do what you'll most likely need to do and not overburden the menus with submenus and options dialogs for things you don't really need.
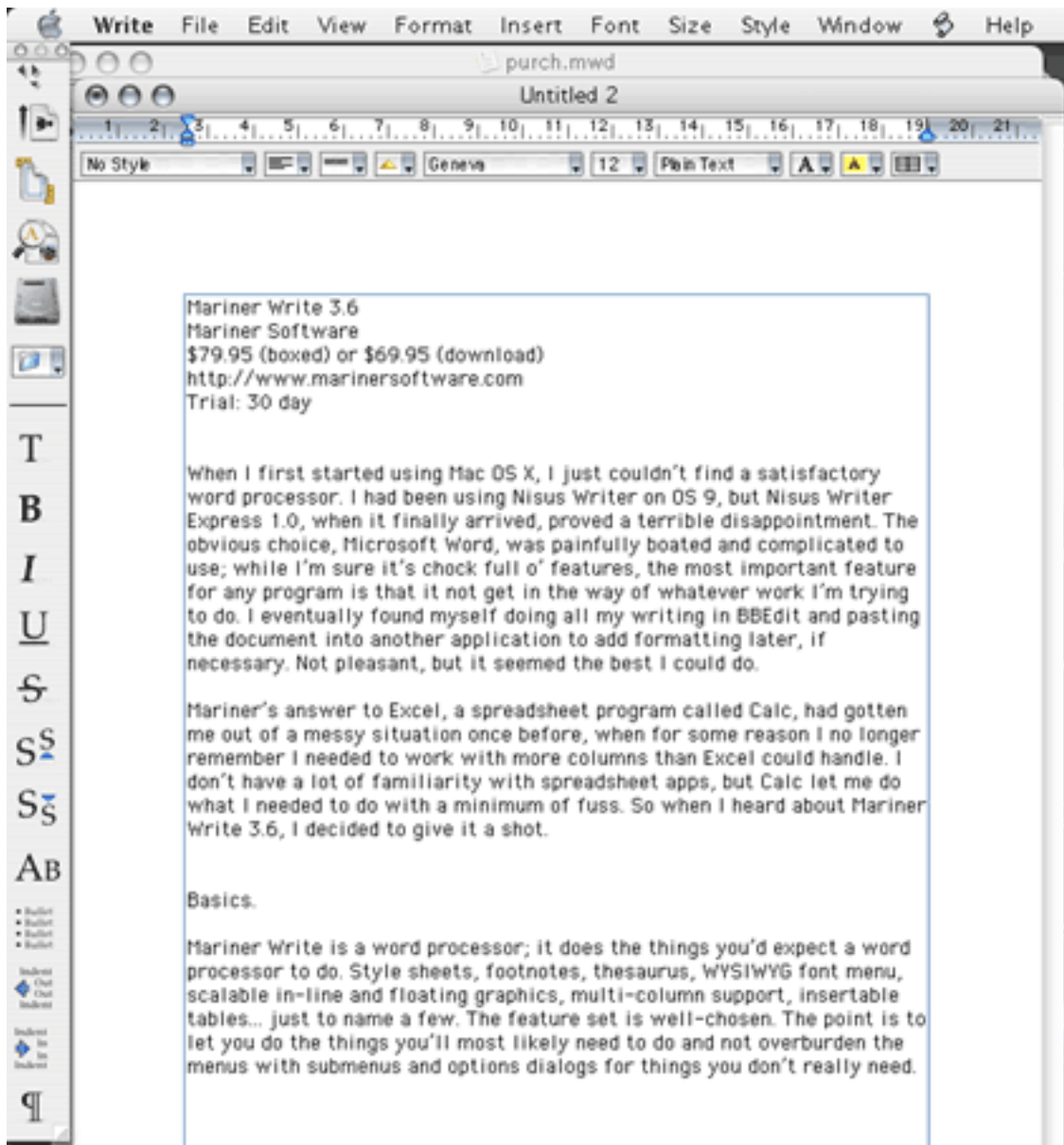
File Formats

In addition to its own proprietary format, Write lets you save documents as standard RTF, MS Word RTF, text, or PDF. The ability to save as PDF is nice: any OS X program can do it, of course, via the Print dialog. But saving a document as PDF through the Save dialog is more straightforward and intuitive. It's this sort of attention to detail that makes Write feel easy to use.

At first, it seemed like Write didn't save any formatting I applied to my documents. Finally, I realized the problem: I'd open a text document, add some formatting, hit Save, and open the document later to find the formatting gone. My own stupid mistake, granted, but if the filename doesn't have an extension, it's an easy error to make. So, I'd have appreciated a warning from Write before closing the document.

Many of us work in a Microsoft-dominated world. That means we need to be able to read files created by Word. Well, Mariner Write can accomplish that for the most part—sort of. Several documents I tried showed up just fine in Mariner Write, but one was kind of a mess: only text on the first page was visible, but Write showed a second, apparently blank page. Select All selected (invisible) text on the second page, and I was able to copy and paste into a new Write document, where all the text showed, but certain formatting elements, including item numbering, were absent. So unfortunately, if you need to be able to reliably read any but the simplest of Word documents, you'll probably need to keep a copy of Word on your Mac.

Interface

The quality of the user interface has a huge effect on whether or not I will actually use a program. Most companies realize that users don't read manuals, and accordingly don't include printed manuals with their products. But they fail to realize that what users do instead of reading manuals is follow their nose. Here's how I work: I decide I want to apply a particular sort of formatting to a word, paragraph, etc. Then I start searching through the menus for a way to do that. If my first guess is wrong, OK, but if my second guess is wrong, too, I start getting frustrated. The program's getting in my way.

Mariner Write's menu system is well designed. My first guess is usually right, and if it's not, my second guess is. Write puts things where you expect to find them. Or at least where I do.

One example: I loathe automatic spell-checking. If I'm writing, I don't want to be interrupted; I'll worry about proofreading later. It took more or less forever to turn off that option in Word. Write, on the other hand, makes it an option in the Edit > Spelling submenu. Of course, it's also in Preferences, but the point is, it's Spelling, so doesn't it make sense to put it in the Spelling submenu?
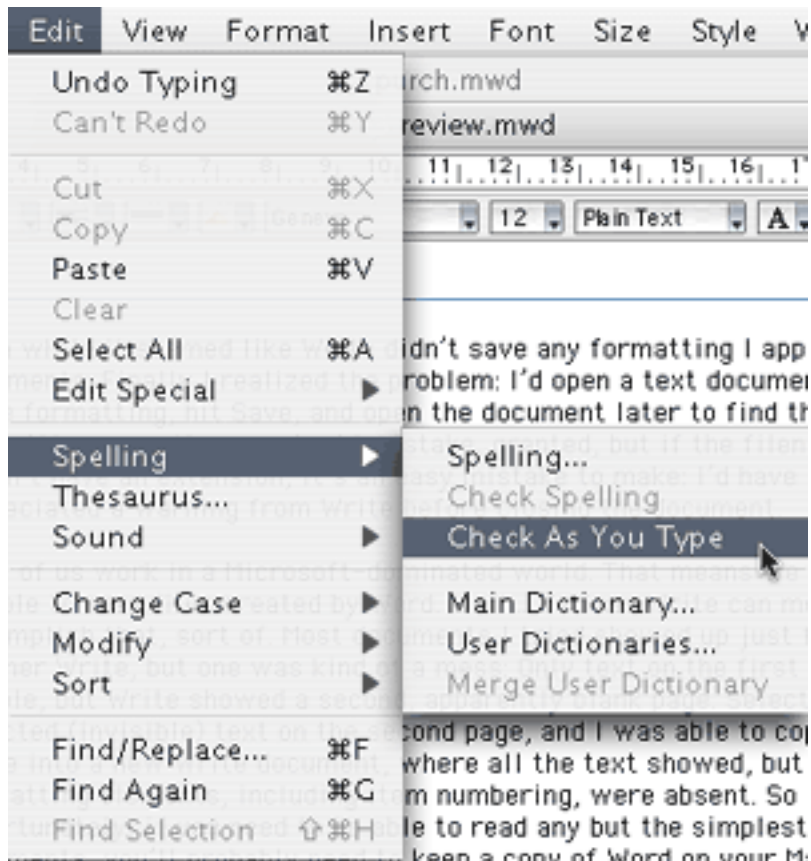
Now, say you want new documents to use a particular style by default: your choice of font, page numbering, a pleasing background color, etc. It's as simple as creating a blank document with the features you want and selecting Save as Default File from the File menu. New files will use that default file. Now, what if you want a plain old ordinary new file? Pick New Empty File from the File menu. It's all quite intuitive.

One more feature I really love: there's an option to automatically open documents from the previous session when you start up Write. It doesn't sound like a big deal, but it's great to have my documents right there for me when I'm ready to work.

Oops

Write is not without its flaws, even though they're mostly pretty minor.

Say you want the page number in the footer on every page. Simple enough. But now you want a header that appears just on the first page. Suddenly, the first page's page number footer has disappeared. The problem is, there's only one "different first page" option in the header/footer dialog box, and it applies to both the header and the footer. It's easy enough to get around this by duplicating your footer separately for the first page, but then if you want to change it you have to change it in two places, etc. Messy.

You can specify a background color for your documents if you want to see how something will look on colored paper, or if, like me, you find light gray easier on your eyes than bright white. Unfortunately, the default is to print this background color. Considering that most printers can't do edge printing, I can't imagine ever wanting that behavior. The option to turn off background color printing is uncharacteristically hard to find—it's in the Mariner Write section of the Print dialog box.

Mariner Write's rectangular selection (it calls this "discontiguous") is buggy. Hold down the Command key and you can select, say, one column of tab-delimited text. Handy. However, in some cases, copying that text produces strange results when pasted into another application. It always looks OK if you paste the text into Write, but if you then Undo your Paste, some text is left behind. So, rectangular selection definitely needs some attention.

Find and Replace

I'd been working with Write for a while when I found I had to do a Find and Replace. But when I hit Command-F, I was astonished by what I found, or rather by what I didn't find. Maybe I'm spoiled by Nisus Writer and BBEdit, but egads, I can't understand how anyone can do any serious writing in an application that doesn't have something like regular expressions. It's something I've come to take for granted, right or wrong, and I was taken aback when I found there was no way to include a portion of my search string in my replace string. I ended up copying my document out of the word processor and back into my old friend BBEdit and continuing to work from there. It seems I've come full circle.
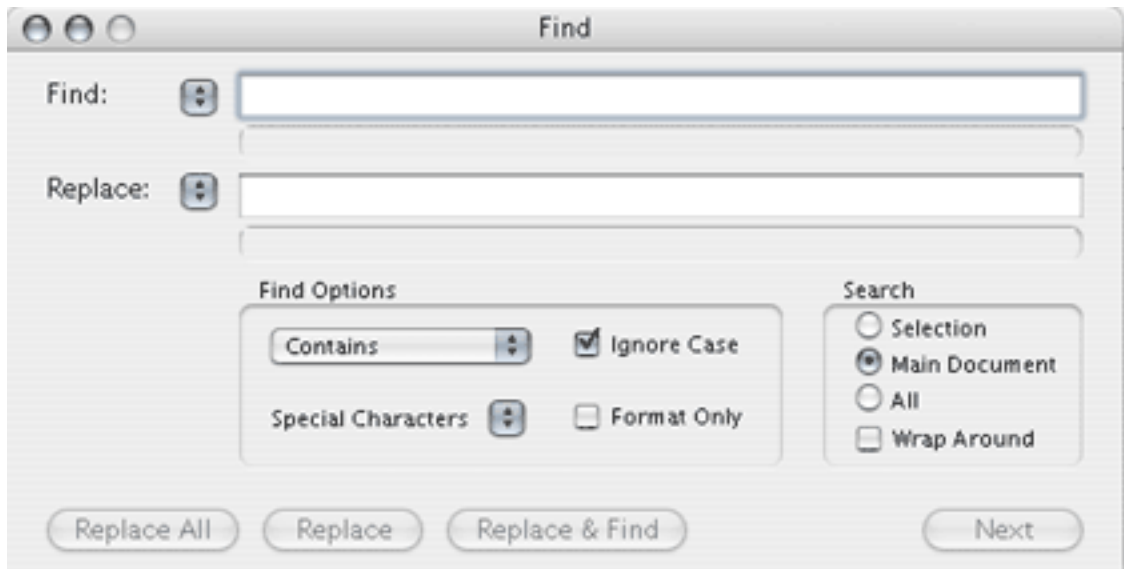
I can't hold it against Mariner Write that it doesn't offer regular expressions in its Find and Replace dialog; that feature doesn't seem to be standard word processor fare. But it's a feature I'd love to see in a future version.

Conclusion

Those who often have to work with complicated Word documents should probably stick with Microsoft's product for the time being, but if you just want a solid, easy-to-use word processing tool to help you get the job done, you won't go wrong with Mariner Write.

Review: QuicKeys X2 2.1

by Gregory Tetrault, gtetrault@atpm.com

Developer: CE Software, Inc.
Price: $100; $20 (upgrade from 1.5); $35 (upgrade from 1.0); $70 (upgrade from older version).
Requirements: Mac OS 10.2.3, G3 processor, 128 MB RAM
Recommended: Mac OS 10.2.4, G4 processor, Internet connection
Trial: Fully-featured (30 days)

Overview

QuicKeys X2 is a productivity enhancing application for Mac OS X. QuicKeys creates shortcuts to simplify tasks. The shortcuts can be simple, one-step key commands, multi-step macros, or complex mini-programs. QuicKeys also supports toolbars (palettes) for one- or two-click access to saved shortcuts. Shortcuts and toolbars can be global or linked to specific applications. QuicKeys can launch an AppleScript or be invoked from an AppleScript. QuicKeys also can send Terminal commands.

Installation

QuicKeys X2 requires that the OS X Accessibility preference (Allow Universal Access Shortcuts) be turned on. After confirming that Universal Access System Preference, installation consists solely of dragging the QuicKeys application icon from the CD or mounted disk image to the Applications folder. You may also copy QuicKeys-related documents to your hard drive. QuicKeys places a folder in your user Library.

QuicKeys X History

CE Software completely rewrote QuicKeys to work with OS X. QuicKeys X 1.0 was missing much of the functionality of its very nice OS 9 counterpart QuicKeys 5.0. Each successive version of QuicKeys X brought it closer to the functionality of QuicKeys 5.0. QuicKeys X2 2.1 nearly matches its predecessor's functionality.

Using QuicKeys X2

Unlike QuicKeys for OS 9 and earlier, QuicKeys X2 is an application that can be run as a regular application or as a background application. (The ability to run QuicKeys X as an application is its biggest advantage over QuicKeys 5.) The QuicKeys Editor window is

present when QuicKeys is the frontmost foreground application. The Editor window is where you view, create, and edit QuicKeys shortcuts. The Editor window displays a list of scopes (translation: applications associated with QuicKeys shortcuts) and associated Shortcuts.
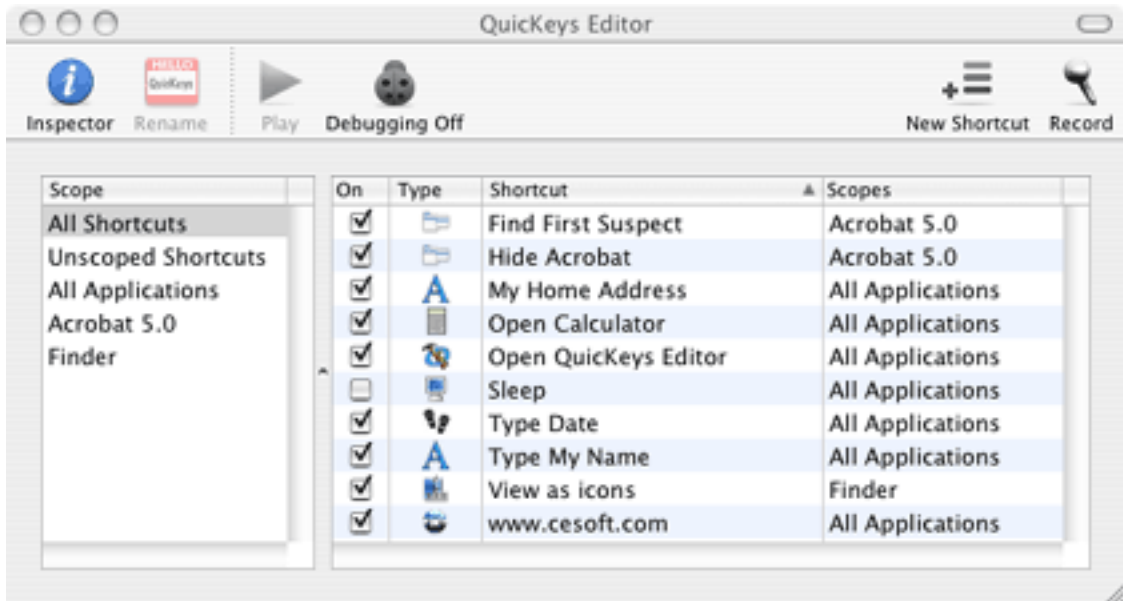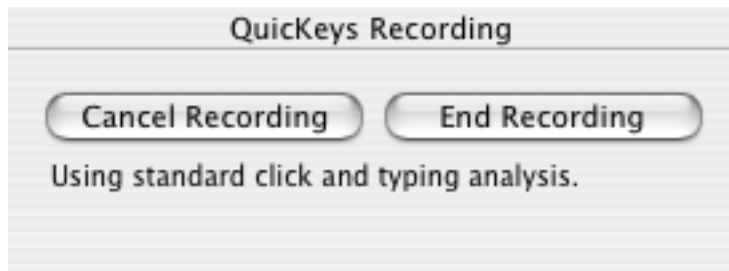

QuicKeys Editor Window

For each shortcut, the Editor window has a checkbox for turning the Shortcut on or off, a Type column displaying an icon for the type of Shortcut, and a Scopes column indicating the applications that can use the Shortcut. You can sort by any column by clicking its heading. Clicking again inverts the sort order.

Shortcuts can be created manually by clicking the New Shortcut button or by selecting an item from the Create menu. This works well with single-step or very simple Shortcuts. Shortcuts also can be created by recording a series of actions by clicking the Record button or by selecting Start Recording Me from the Create menu.
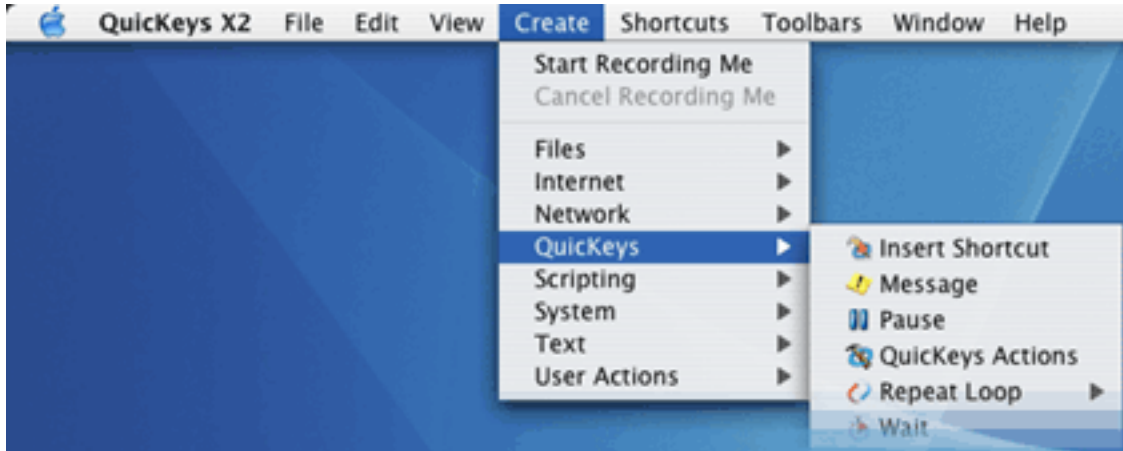

QuicKeys Create Menu Choices

A QuicKeys Recording window lets you end or cancel the recording. The recording method usually works well for creating moderately complex Shortcuts. However, recorded Shortcuts sometimes will require editing to work correctly.

After clicking the End Recording button, QuicKeys returns to Editor mode and displays the Shortcut window with a Steps drawer on whichever side has the most space. Double-clicking a step pops up the Inspector window with Step Results choices. For each step you can choose how to handle failure or success (Example: Display a message after failure, jump to a particular step after success).
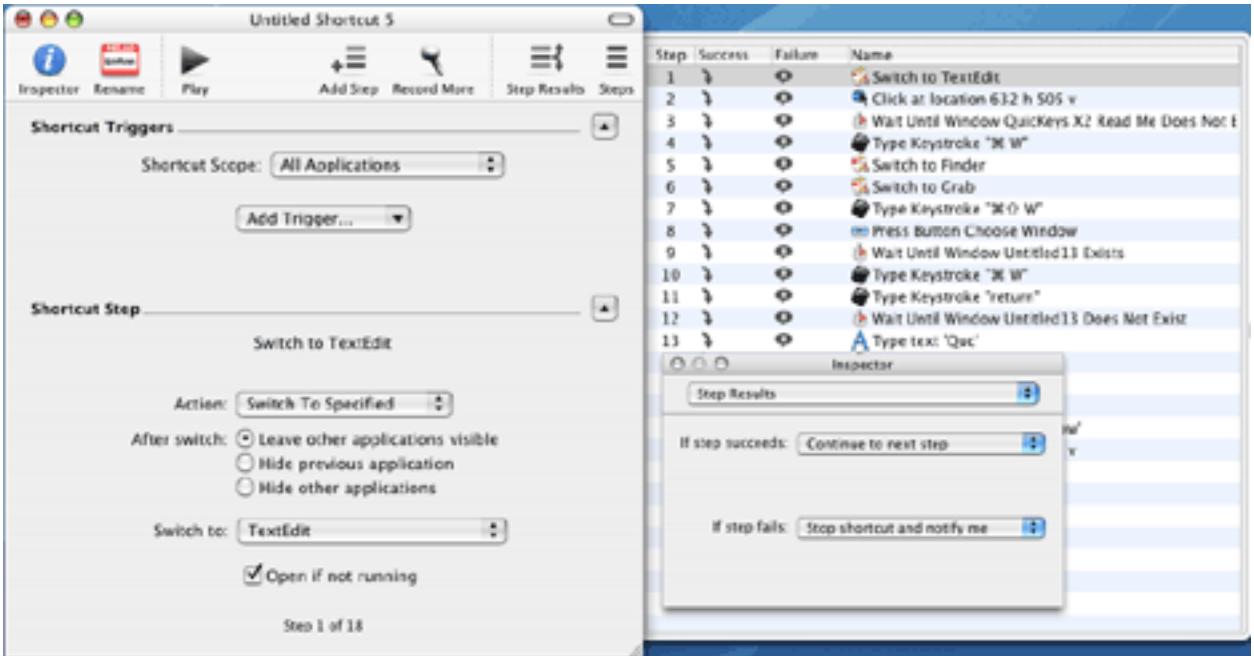
Recorded Shortcut window with Steps drawer and Inspector window.

The appearance of the Shortcut Step portion of the Shortcut window depends on what type of step is selected. For example, selecting a "Type text" step results in the appearance of a text entry/editing box, a Check Spelling button, and radio buttons for inserting or typing text.
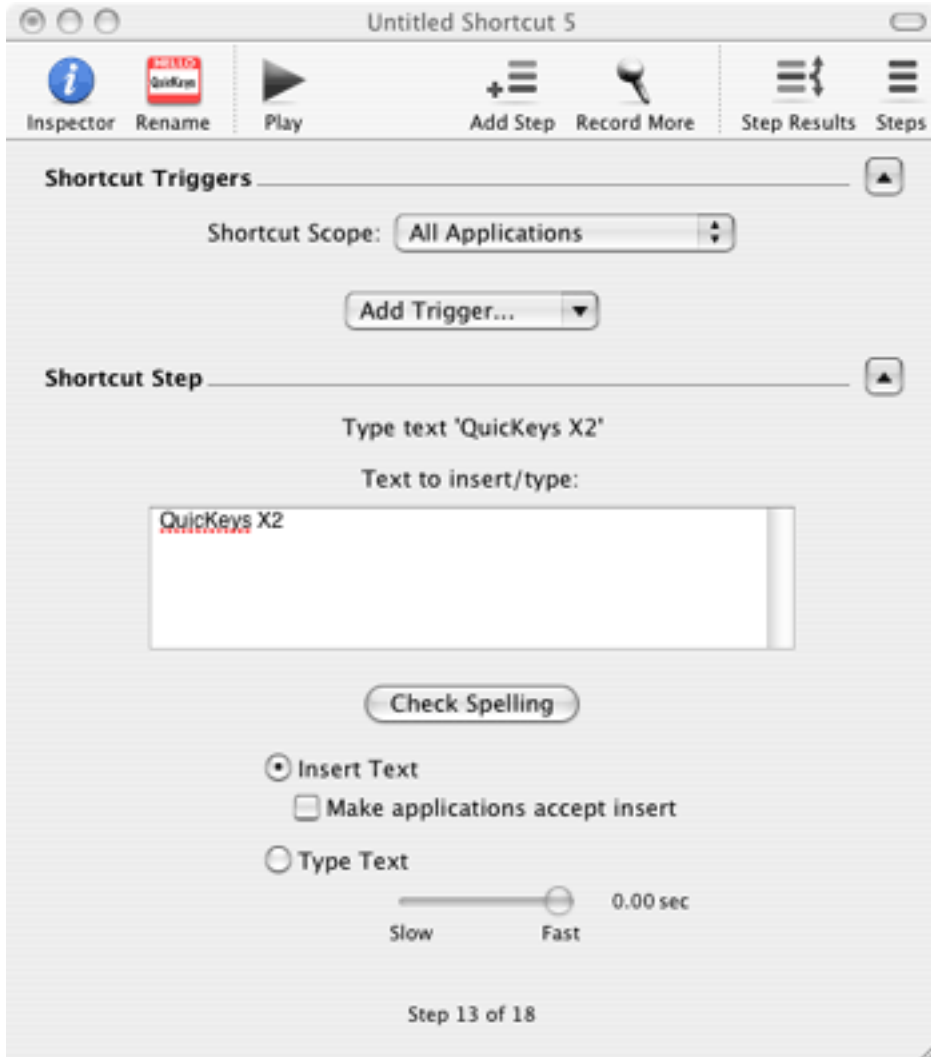

Shortcut Window for a "Type text" step.

The Shortcut Triggers portion of the window lets you select the scope of the shortcut and how the shortcut will be triggered. Simple triggers are Hot Keys or QuicKeys Menu items. Advanced triggers include "After Open" (activate a specified time after launching an

associated application), "Day and Time" (activate at specified days and times), and "Repeat" (repeat a specified number of times after triggering). Multiple triggers can be used. (Example: A Shortcut could be activated by a Hot Key, a QuicKeys Menu, 30 seconds after a scoped application launches, and at 7:00 AM every Friday.)
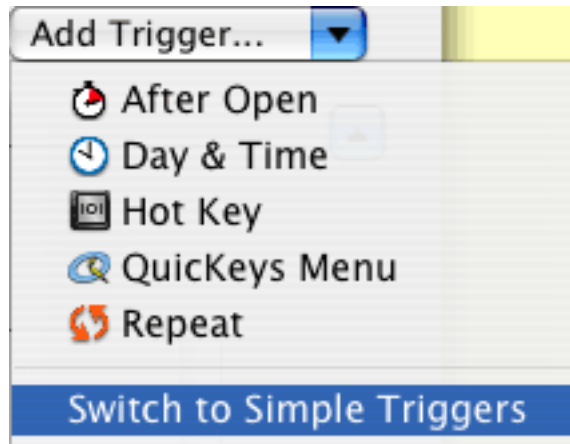
Add Trigger Menu

QuicKeys provides debugging assistance via the Inspector (you can have comments displayed after a failed step and jump past other steps) and by using its debugging mode. In debugging mode, the Shortcut is run one step at a time, with information about each step displayed in a small window. If a step fails, an alert window appears.
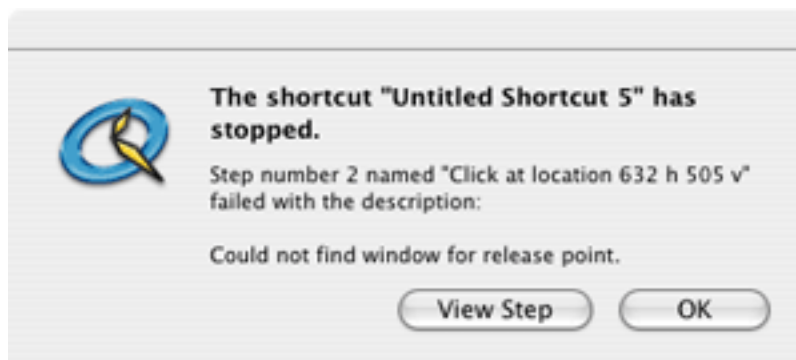
Alert message after Shortcut failure in debugging mode.

Toolbars let you organize your Shortcuts. Toolbars can be standard or docked and can be oriented horizontally or vertically. Toolbars can behave like normal windows or they can always be the top (frontmost) window. Unfortunately, useful QuicKeys 5 options such as Click-N-Go, Pop Out, and semi-hidden Docked Toolbars are unavailable in QuicKeys X2. Only a single row or column of Shortcut buttons is allowed.
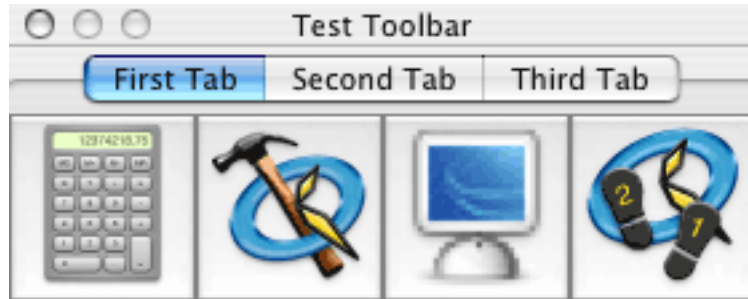

Toolbar Example

Toolbars with many Shortcut buttons can make use of tabs to organize Shortcut buttons. Clicking a Toolbar tab button displays only the Shortcuts assigned to that tab. However, the same Shortcut can be placed on more than one Toolbar tab.

What About QuicKeys Icons (Applets)?

Earlier versions of QuicKeys allowed you to save a Shortcut as an "Icon" or applet. This could be launched like any other application. QuicKeys X2 2.1 still lacks direct support for Icons. The workaround is to create an AppleScript that calls the QuicKey Shortcut and save it as a run-only application.
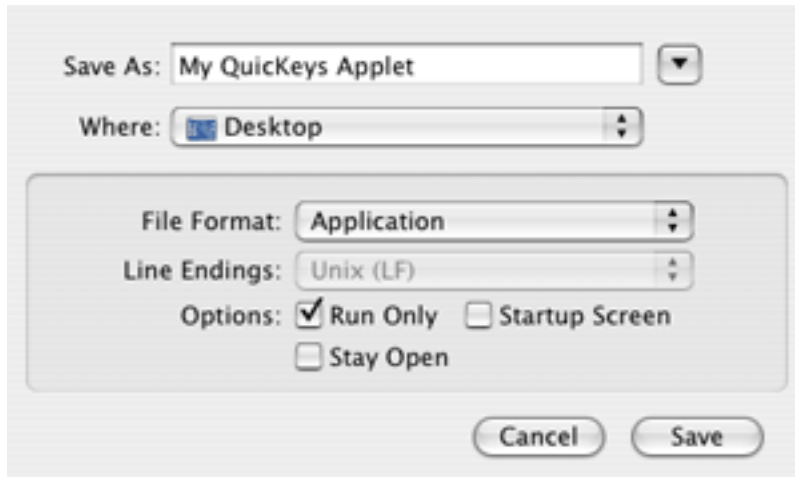
AppleScript Save As sheet with options for saving a run-only
applet on the Desktop.

What About Voice Control?

QuicKeys X2 2.1 still lacks support for voice triggers. It also lacks Speak Ease, the QuicKeys 5 tool for using Speech on text files. The workaround is to create a Speakable Item that will launch an AppleScript that calls a QuicKeys Shortcut.

Documentation

QuicKeys comes with a 7.5" x 9", 155-page, soft-cover printed manual. The same manual is also included as a PDF file. The printed manual is monotone (black, white, and grays), but the PDF manual is in color. The manual contains many screen images that look better in color. The manual adequately covers the use of QuicKeys X2, but it was written for version 2.0. The changes in version 2.1 (Inspector window instead of Info window, ability to jump to a particular step in Step Results mode, etc.) are not described, although some are listed in the "QuicKeys X2 Read Me" document.

Technical Support

CE Software offers free live technical support by telephone (515–221–1803) Monday through Friday 8 AM to 5 PM U. S. Central Time. Support also is available by fax (515–221–1806), e-mail, and the Web. CE Software also supports a QuicKeys Community forum.

Summary

QuicKeys X2 2.1 adds many features beloved by power users of QuicKeys 4 and 5. However, QuicKeys X2 still lacks useful features such as popup Toolbars, hidden dock Toolbars, QuicKeys Icons (applets), and Speech support. Users with previous QuicKeys experience or with the perseverance needed to master QuicKeys X2 can greatly enhance their productivity. Inexperienced users can benefit from QuicKeys' ability to record Shortcuts that usually work without editing. However, users who need only a few simple Shortcuts (such as hot keys for nested menu items or inserting boilerplate text) may do better with a simpler macro-generating application.

Review: SightLight

by Lee Bennett, lbennett@atpm.com

Developer: Griffin Technology
Price: $40
Trial: None

On paper, the SightLight seems like a brilliant idea (pun intended). Indeed, I was eager to get my hands on one to give it a try and, of course, share with ATPM what I thought about it.

In application, however, the SightLight fails. What surprised me was not so much that the SightLight didn't live up to my expectations, but rather that I now believe the entire concept of a camera-mounted source of illumination for video-conferencing is flawed. In fact, the reason I rate the SightLight as Okay instead of Rotten is that I truly believe Griffin created a quality product that is probably as good as it can possibly be. But I also believe that neither Griffin nor any other developer can fix the fundamental flaw.

The flaw I refer to is analogous to using water to put out a grease fire. Someone who doesn't know better would think that water is one of the best things to extinguish a flame. Sounds logical but, as most of us know, spraying water on a grease fire will only make the fire worse.

How does this relate to the SightLight? The light produced by a camera-mounted source is pretty glaring. I found myself squinting when looking at my LCD display below the iSight—even with the iSight mounted to either corner of the display. To confound the problem, even this seemingly bright amount of illumination isn't enough to be of much help. Just as more water makes a grease fire worse, brighter light makes it harder to comfortably look at my display.

Normally, I use an external keyboard and mouse with my laptop. Where I sit, in relation to where my laptop sits, is such that my head is anywhere between three to four feet away from the iSight. At the SightLight's brightest setting, I found that I had to be within one foot for the amount of light to be worth having. At this distance, not only were my eyes suffering from being closer to the brightness, but my head—from chin to mid-forehead—fills the picture (possibly scaring my friends!) and close-up wide-angle lens distortion is blatantly visible.

Intertwined with this problem is the color temperature of the light. The SightLight uses LEDs as its light source. I love LEDs. They can be made amazingly bright, yet at the same time, only consume a miniscule amount of power. It's also a pretty safe bet that an LED illuminating an object will outlive the object it's illuminating. But have you ever seen one that uses a nice, neutral white color? Neither have I. They always have a slight blue tinge to them. Truly, I know nothing of how a Light Emitting Diode works but, if it were possible to have them emit a more natural color, I think I would've seen one by now.

Regardless, the LEDs used by the SightLight definitely have a blue cast. iSight cameras are able to perform a reasonable amount of color correction, but only if you're within the dreaded proximity I've already mentioned. Any further away and you look like Papa Smurf.

Finally, for those who were swayed by my rave about the SightFlex and iFlex last month, don't count on using either of them at the same time as the SightLight. The mount doesn't permit it unless, perhaps, you run a second FireWire cable to the SightLight.

I chose not to sprinkle sample screen captures throughout this review because they seemed more dramatic to be grouped together. So, in closing, I'll leave you with these images to judge for yourself how well the SightLight works. All of these images were taken with the SightLight set for full intensity because, honestly, I didn't really see much variance when I set it to automatic mode. And, yes, the wall behind me is white.

My usual amount of light and distance (about three feet) from the camera during a video-conference.

Frightening close-up with usual illumination. The slight blue you see on my face is actually from my second monitor—not the SightLight.

Usual distance with only the SightLight for illumination.

Close-up with only the SightLight for illumination.

Usual lighting and distance plus the SightLight.

Close-up with usual lighting plus the SightLight. Even this close, the iSight doesn't always properly color correct the image.

Intermediate (two feet) distance with only the
SightLight.

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

What Are Some Tips for Viewing PDFs?

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

Why Are Some Links Double-Underlined?

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

What If I Get Errors Decoding ATPM?

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

How Can I Submit Cover Art?

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

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

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

Do You Answer Technical Support Questions?

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

How Can I Contribute to ATPM?

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

Segments: Slices from the Macintosh Life

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

Hardware and Software Reviews

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

Shareware Reviews

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

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

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

What If My Question Isn't Answered Above?

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