macCompanion

YOUR GUIDE TO ALL THINGS MACINTOSH

8.0

Cover by James Meister
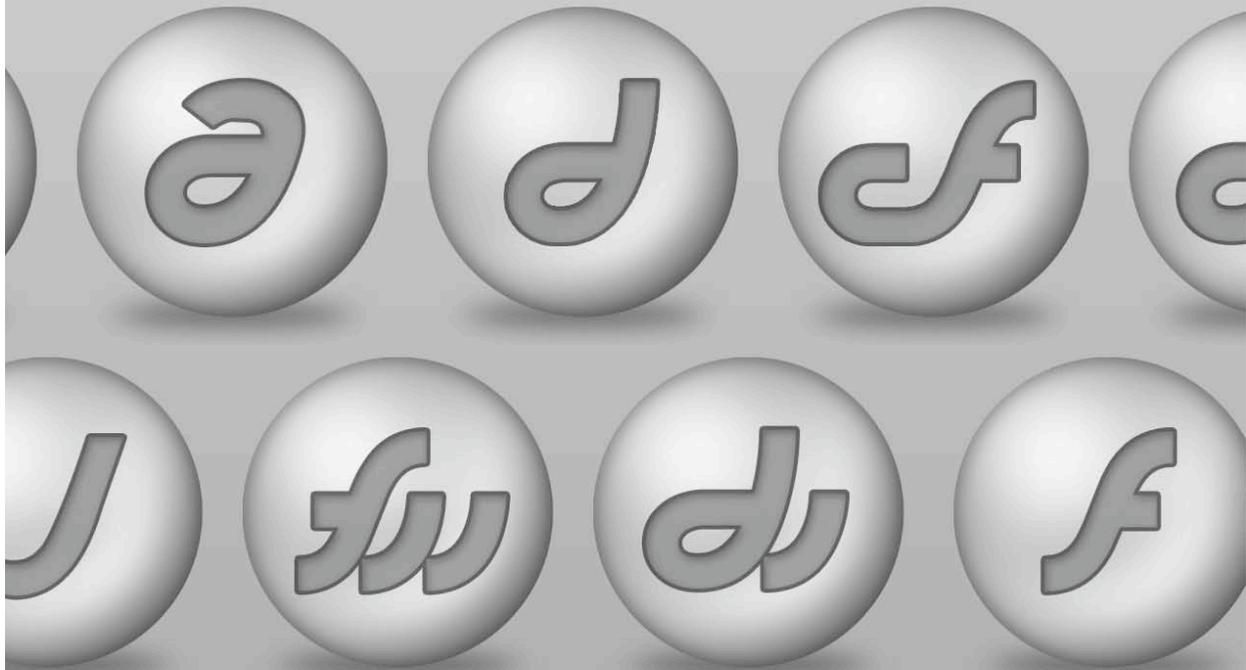
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Masthead

Letter From the CEO

Watching Your Back – Up and Other Things by Robert Pritchett

When I ran the Security Update from Apple I had no reason to be gun shy about hitting the Update button because all previous updates had occurred without incident. An accident was ready to happen because I didn't listen to the still small voice that said 2 days earlier that I needed to copy my folder for the September issue of *macCompanion* to the external hard drive.

What occurred next literally blew me away when the following day, the 1.1 "fix" came out to correct issues related to running 64-bit applications on G5s. I automatically hit the update button without backing up first. Bad, bad move on my part. My system was filled with both beta and other software apps. The beta apps always cautioned that I should be very, very careful and that they were not responsible for any issues that would arise if I didn't backup first before using their apps. I never in my wildest dreams figured that Apple would let me down and their updates to apps would crowbar my system.

I don't remember seeing warning sign stating that I should backup first before updating. Maybe it is there, maybe it is not. Either way, I blew it big time. Now I have NTI's Shadow 2 running in real-time and you can read my review in this issue of *macCompanion*. And no, I don't have a .Mac account. I did twice before and I know how valuable that is for its backup capability, but I had too much stuff and opted for an external hard drive by WiebeTech instead. I just didn't use a backup program. I had used a Maxtor external drive, OneTouch and later OneTouch 2 with the OneTouch program, but I gave those units to others, so left myself wide open to hard drive abuse and Murphy's Law.

My sad story was posted on MacFixIt. Apparently I wasn't the only one affected by gotchas with the 1.1 update and they actually posted a "fix" to the "Fix" by showing how to back out of it by going to a previous version of Mac OS X. Many wrote that they use Safe Mode (hold the *Shift* key down when starting your Mac) when running the updates from Apple and never had a problem. Again, Apple doesn't ask us to do that during the Update process. Maybe they should.

Anyhow, I lost nearly a month's work of effort and also lost all Emails and betas and all those apps that are "Download-only" installs and lost all the apps that had been sent to me for review I had not reassigned to others on our *macCompanion* staff. So to the software industry, if you sent me something and you don't see it published yet in back issues of the magazine, please resend to me so we can make things right.

Meanwhile, I followed all the troubleshooting procedures according to all the manuals and books and helps I have, but you know something? When the drive doesn't appear on the desktop, you are pretty much SOL (military term for Sorta Outa Luck). The assumption by all is that the drive can be seen on the desktop. Let me save you some time. If the drive cannot be seen, the "fix" is reinitializing it. Pure and simple.
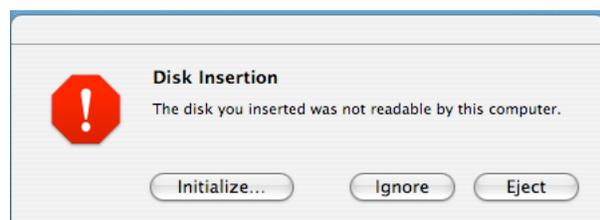
I ran the Utility program in Mac OS X Tiger. It said my drive was unfixable. I went to TechTool Pro. It said my drive was unfixable. I went to DiskWarrior and updated to version 3.0.3. It tried really, really hard for a couple of days to fix the Directory files to no avail. After I reinitialized the drive, I reran DiskWarrior and it found a few more problems that it resolved, so perhaps the hard drive just coincidently blew up with the 1.1. update due to some platter issues or it was a Cajun stew and a certain alignment of the stars that zapped my drive. My favorite conspiracy theory is that a certain someone sent me a logic bomb after they illegally took $2,600 from my wire-transfer bank account (since closed and a fraud case has been established) when I went to investigate the electronic trail they effectively covered up.
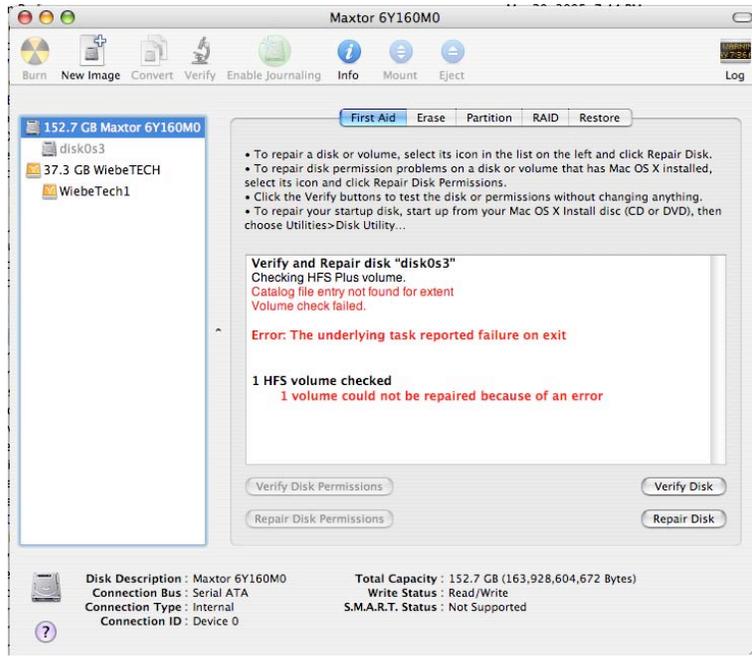
If my data had been critical enough, I could have taken the drive to a Computer Forensics facility like VOGON (of which MPN, LLC is an affiliate) and captured the data, but every once in a while a house can burn to the ground, or as in the case of Katrina, get flooded and we have to start over from scratch. A lot can be said for a clean install. And look at the excuse I can use for late reviews! "My hard drive became inaccessible and I lost everything." Well, I can't use that excuse anymore. And I apologize to all software manufacturers we may have offended by not getting our reviews posted in a timely manner.
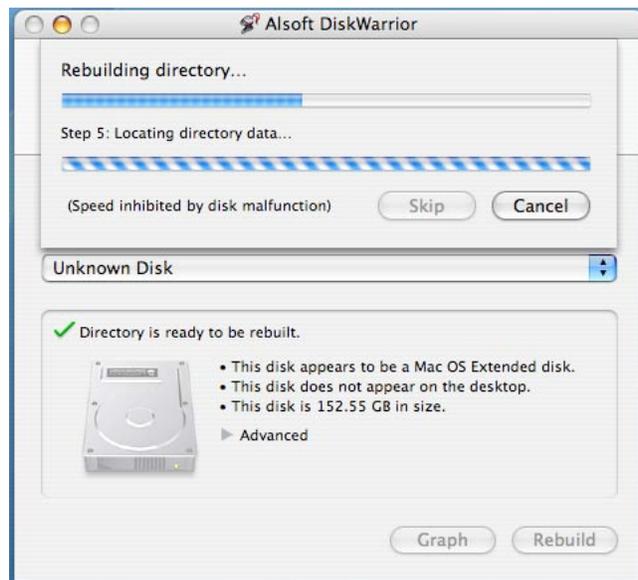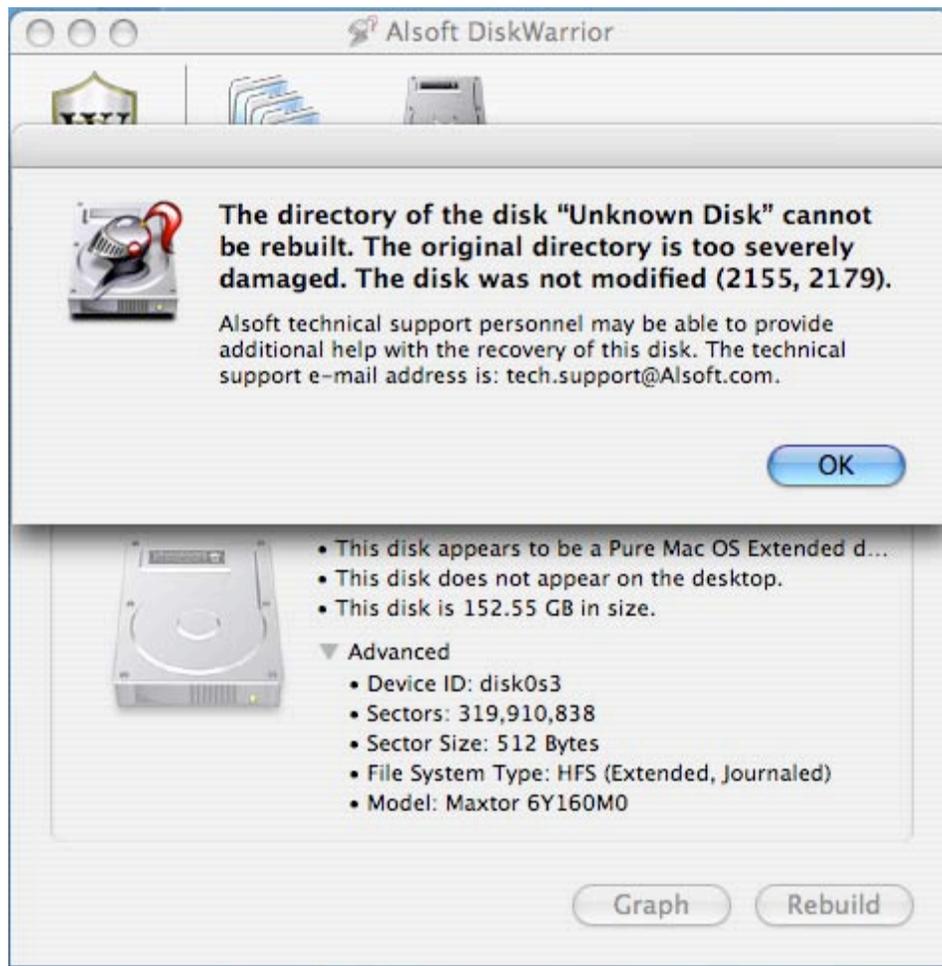
When this appears, it is time to reinitialize the drive.

Read Mike Swope's DiskWarrior review in this issue of *macCompanion*.

And Now, the Other Things!

Please give the following new *macCompanion* staff a warm welcome:

Jonathan Hoyle's *According to Hoyle...* column focuses on cross-platform development from the perspective as a cross-platform programmer and he can be seen at http://www.jonhoyle.com/.

Daphne Kalfon joins us with her new column, *Music and the Mac*. Daphne Kalfon is on board now as a staff member and will be our Mac Music specialist. Samples of her work can be found at *Newmedia Sound* - http://www.newmediasound.ca/. She won 1st prize in our *macCompanion* Music Contest last year.

Leland Scott's continuing column, *Musings From Mars* is reprinted from http://www.musingsfrommars.org/ his "For Shame Some Federal Websites now requiring IE and Windows" article about Federal Websites that are tied exclusively to one computer platform and one browser. I think he approached the topic better than Mark Gibbs did in the Network World Backspin article titled "IE required: The government gets it wrong" at http://www.networkworld.com/columnists/2005/091205backspin.html.

Personally, I think that the lazy web designers who got away with this kind of exclusionary tactic need to be spanked and sent to the corner until they have finished reading the World Wide Web Consortium standards for web design. And their bosses need to be trained in knowing that there are safer browsers out there that are not as susceptible to malware activities.

Steve Stanger is on board as a Mac Maintenance and Troubleshooting specialist and will be providing articles based on his *The Mac Attack* podcasts at http://themacattack.libsyn.com/. He runs a successful Mac Consulting business in New Jersey at http://www.stevecom.com . His first article is in this issue as he helps businesses and families migrate towards the Mac.

And **Gene Steinberg** has also agreed to join us as a *macCompanion* staff member. Read his articles over at *MacNightOwl* at http://www.macnightowl.com/ and listen to his weekly podcast at *The Tech Night Owl Live* at http://www.techbroadcasting.com.

We also welcome **Tim Verpoorten** of daily *Surfbits* and weekly *Mac ReviewCast* podcast fame as a new staff member. Listen to him at http://www.macreviewcast.com each week as he invites us to discuss activities that are *macCompanion*-based.

And Finally…
Please send in your Switcher stories so you can be eligible for either a package of Roxio's Toast 7 or one of two Wiley books by Dennis and Michael Cohen and Andy Ihnatko, or one of three of NTI's Shadow 2 real-time backup software. And send us those stories to contest@maccompanion.com. The winners will also get to be heard on Gene Steinberg's *The Tech Night Owl Live*, if they so wish. We are very eager to hear from you!

And last of all, we need your financial support so we can keep doing this *macCompanion* labor of love on your behalf, so please go to our links that display our advertisers and to our Bazaar where our affiliates are located. They want to serve you as much as we do. And keep spreading the word about us. It won't be too much longer and we can say that we have 2 million visitors each month who come and download a copy of our magazine. "Make it so!"

Team Banzai Part II

Dora update by Dr. John Choi and Team Banzai

September 26, 2005

We're in Fontana, at the California Speedway, waiting for all the semi-final festivities to begin tomorrow.

It's been nine long months of late nights and long weekends, too many ideas and too little time. But as with all journeys, this one had lots of lessons and contributed to the "building" of much character in all who participated.

As you undoubtedly know, we setup a cool website http://team.gobanzai.com/, wrote a special blogging widget (dBlogger), and signed up for the official DARPA update site http://www.grandchallenge.org/, but I can't connect to the server to update anything because I can't remember any of the passwords. It's been many days since I've slept enough for my brain to think about anything other than GPS signals, actuator torque curves, how much steering angle is really the right amount for this turn.

We had a demo at Herman Cook VW a couple of weeks ago and noticed a few problems that we thought we could fix. So.... we ordered a bigger motor to be able to turn tighter and stop faster. The new motor broke the old coupler. The new coupler didn't fit the old actuator. All the moving and swapping out parts caused some wires to get lodged under the seat hinge. The slow current drain from the hinge pressure turned into a full-scale short circuit. But before discovering the culprit, embarked on a complete re-wiring of the car system (just in case).

That was last week. Last night, we got (almost) everything back together and the car moving again. That was just to explain why Kenny's first task after arriving in our hotel room was to take a nap.

Until we get our office Blog feed working again, feel free to redistribute this "old-fashioned" update to whomever you think may be interested.

Editor: Robert Pritchett compiles the following:

The beauty and elegance of the Mac and Apple isn't the technology. It is what we do with it that matters. Team Banzai, formed by the Banzai Research Institute takes their expertise in neurobiology, physics, electrical and mechanical engineering to "Think Different".

DARPA $2 million Autonomous Vehicle Grand Challenge
http://www.darpa.mil/grandchallenge/

Defense Advanced Research Projects Agency ran the first annual autonomous vehicle challenge off-road 300-mile obstacle course and distance competition on March 13, 2004. No vehicle got very far and all failed less than 12 kilometers out. Most failed within 2.5 miles.
http://en.wikipedia.org/wiki/Defense_Advanced_Research_Projects_Agency

This year, 200 vehicles entered the competition, and there are 43 semi-finalists. That will be whittled down to 20 come September 28th though October 6th at the California Speedway in Fontana, CA for the National Qualifying Event that begins October 8th in the Mohave Desert at a 150-mile obstacle course littered with tank traps and other battlefield condition surprises.
http://en.wikipedia.org/wiki/2005_DARPA_Grand_Challenge

Team Banzai is hoping to win with their VW SUV named Dora. What sets it apart from the competition is that it is run using 3 Mac mini's using both off-the-shelf and custom software. Picture 3 Mac mini's side-by-side behind the back seat. So they take up 1.5 feet of space back there nestled in the top of a rack with the other GPS, LIDAR and Power equipment. If you look at the first video they created, you will see that there is an iSight camera mounted from the ceiling near the driver side for visual out the windshield. They have created 3 really sweet, slick QuickTime videos so far that can be accessed on their media page at http://team.gobanzai.com/.

Not only have they created a vehicle that can drive itself under road and off-road conditions, but with the Apple apps, they have also taken up the system a notch with an interactive driving experience where human operator can issue voice commands to the computer such as "turn right ahead" or "slow down here" and the vehicle will respond with information such feedback as "lane not available for turning" or "cannot slow down here because of approaching traffic" in a seamless and harmonious fashion with a human co-driver.

In typical Mac fashion, the Team Banzai looked beyond the military applications and wrote; "While the 'fully autonomous' mode may be very useful for industrial and military operations, we feel that the 'cooperative driving' mode has significant applications for consumer use. Such a system may soon help make driving safer by anticipating dangers and aiding disabled or distracted drivers." Think medical emergencies or possible long-term disability situations.

Three Mac minis are based on sailboat racing experience with a navigator, tactician and in this case, a driver and are being used to distribute the work onto specialized fault-tolerant pre-processing units as a system modeled after the human brain:
The 'Navigator' processes Geo Positional System (GPS) information every 10 seconds with an accuracy of 1 centimeters and Laser radar or LIDAR scanners to detect and tract up-coming terrain and transmitting summary information to the other Mac mini's.

The 'Tactician' determining the best course of travel using the sensory information and the pre-programmed route map given by DARPA 2 hours before the race begins and transmits to the "Driver". It uses software based on the real-world rally racing practice of pre-running a course to develop a course guide.

In response to my question about avoiding tank traps and claymores, I was told that the Tactician does the following activities:

The route map is analyzed and pre-calculated into a series of maneuvers such as keep steady, arc at an angle, brake, etc. Based on the vehicle position-velocity and the route map, it can determine the target steering angle. The target speed is calculated by cascading through a series of filters. It determines the maximum or "safe" travel speed based on turning requirements. Then it adjusts the speed for terrain conditions and for anticipated future speed such as entering a lower speed limited segment. And then it compares this speed with the route speed limit to truncate if necessary. Using this maneuver-based driver command model, the Mac mini known as Driver, can interject in between pre-calculated maneuvers any number of new maneuvers as conditions change and obstacles are detected.

The 'Driver' is responsible for managing the vehicle control actuators and monitoring internal dynamics as it drives over rocks, through ditches and works its way around other obstacles, like those tank traps.

They are competing against 42 others beginning September 28th on the California Raceway in Fontana, CA against a number of vehicles that look like something inspired from Mad Max; http://www.darpa.mil/grandchallenge/Spectator_handout.pdf

What does some of the competition looks like? All the competitors are located here: http://www.darpa.mil/grandchallenge/TeamInfo.html.

Here are some of the competitors and the computing systems they are using:

There is the Stanley by the Stanford University Racing team that uses 7 portable computers – and the same VW style SUV.

Carnegie Mellon University's Red Team entering a converted Humvee name *dH1ghlander* that replaces the one that got the furthest last year named *Sandstorm* and it is back this year.

TerraMax's Oshkosh is a 15-ton military truck.

Axion Racing's Spirit SUV uses 5 Dell 2650 Servers running Red Hat Linux and competed last year.

Team Aion is running AMD multiprocessor servers using 64-bit Fedora Core Linux in their Jeep Cherokee.

BJB Engineering is running an Isuzu SUV with an Allen-Bradley P4 industrial computer.

The Berkeley-Texas A&M Blue team is using a motorcycle and an AMD-processor-based computer.

Caltech is running a Ford E-350 van named Alice, with 7 Dell servers.

University of Louisiana's Team Cajunbot is running a MAX 6-wheel all-terrain vehicle using 2 AMD-based computers and survived Katrina. Team member families did not and are in recovery-mode or are now Hurricane Katrina refugees. Hopefully they will be able to attend.

Team Cornell is using AMD-based military-grade laptops from VT Miltope in their off-road 4x4s.

Team CyberRider uses multiple mini-ITX boards from Via with their Dunebuggy-like vehicle.

Team DAD uses proprietary computer system using Texas Instruments chips in their Toyota pickup.

Team Ensco is using 8 National Instruments-based computers in Dexter, a specially built vehicle by Lothinger Engineering.

The Indy Robot Racing team has no less than 40 portable computers running its Jeep Rubicon.

Team Juggernaut is using a Windows-based system for their Desert Juggernaut off-road vehicle.

Terra Engineering's 6-wheel TerraHawk Vehicle also runs with Fedora Linux on Xeon servers.

UCLA' s Golem Dodge pickup runs on National Instrument/Intel systems.

Virginia Tech is using an XRT Club Car named Rocky and running on two PXI computers from National Instruments.

Keep up-to-date with the Team Banzai Dashboard Mac OS X-based widget at
http://team.gobanzai.com/widget/

http://team.gobanzai.com/media/pr_08302005.htm

According to Hoyle...

Cross-Platform Software Development from a Macintosh Perspective, Part II: Qt by Jonathan Hoyle

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Last month we began a series of articles discussing the many options of cross-platform development available to the Macintosh software developer http://www.maccompanion.com/archives/september2005/Columns/According_to_Hoyle_1.htm. Over the course of the next several months, we will examine these approaches. These will include both freely available and commercial packages, covering different programming languages, and different levels of expertise. Whether you have been a Macintosh programmer for 20 years or you are just starting out, there is a cross-platform solution available, which I hope to introduce you during this series. We first begin by looking at some solutions available to the C++ programmer. This month, we review the application framework Qt by Trolltech http://www.trolltech.com.

Qt History & Overview

Qt has been a cross-platform solution about 10 years. Unfortunately, for most of that time Trolltech's idea of "cross-platform" was Windows and Unix only. Trolltech finally released a Macintosh version of Qt 3.0 in October 2001; just around the time Apple released Mac OS X 10.1. So Qt could take advantage of all the new power of Mac OS X, Classic has never been supported. Although there have been some improvements and bug fixes to Qt/Mac over the past four years, the first significant upgrade came in July 2005 when Trolltech upgraded its entire Qt line to version 4.0.

Qt is arguably the most powerful cross-platform framework available today. Using this framework, developers can compile applications for Windows, Linux and Mac OS X. Without the burden of supporting Classic, Qt is a very modern and up-to-date framework. It weighs in at about 400 C++ classes, covering everything from simple dialogs, controls, sophisticated OpenGL classes, database connectivity and more. For those not needing the full power of the *Desktop Edition*, Trolltech offers both a *Desktop Light* and a *Console* edition. There are a number of RAD-like tools that integrate well into the Qt framework, such as *QtDesigner* for creating GUI's and *QtLinguist* for localization. The documentation is also very impressive, with a separate tool called *QtAssistant,* which manages it nicely.

In addition to these commercial licenses, Trolltech also offers an *Open Source Edition* at no cost; however, this version does not include some features, such as the database module. Moreover, Qt/Open Source is offered under the GPL license, making it available only to other open source developers. Trolltech was quite clever offering an open source license; it allows developers to try out the package for personal freeware development, and thereby be able to recommend the product to their employer, who might more ably afford the commercial version.

Creating Applications with Qt

Mac developers will not find Qt as easy to use as Windows developers would, especially the online information, which is fairly sparse for the Mac. Qt/Mac applications are built with Xcode (as Qt is incompatible with CodeWarrior), but when searching the Trolltech web site for a sample project, the response is a curt: *"We do have integration with Project Builder and Xcode, but I am afraid that we have no examples or tutorials on how to do this. Typing the following line in a shell will create a Project Builder project:* qmake -spec macx-pbuilder name-of-project.pro.*"* The feel of the environment is also a bit awkward getting started, although once you get going with Qt, adding additional classes to extend functionality get easier. I would strongly encourage anyone interested in developing with Qt to pick up a book on it, as it will help you through the many gotcha's that are likely to crop up. There are many books available on Qt, but most of them are very Windows-centric and cover much older versions of the framework. The only one I have seen which even acknowledges the Macintosh is *C++ GUI Programming with Qt 3* by Blanchette & Summerfield ISBN: 0131240722, January 2004.

Qt is compatible with Xcode 2.1, so you can create Universal Binaries (applications which will run natively on both PowerPC-based and Intel-based Macintoshes). On Windows, Qt supports the *Microsoft Visual C++* and *gcc* compilers for commercial development (*gcc* only for Open Source development). Developers will not find a richer, more powerful framework with which to create cross-platform applications. Using Qt's tools, creating professional looking applications is very easy, and the framework is fairly robust after so many years of being debugged. Though not as Macintosh-friendly as *Interface Builder*, it is the one of the best cross-platform framework available today.

Perhaps the best-known Qt success story is the implementation of the popular open source *KDE environment* for Linux. Other applications, which have been created in Qt, include *Adobe Photoshop Album*, the *Opera* web browser, not to mention the Mac OS X versions of *KOffice* and *PostgreSQL* GUI Client.

Pricing
Qt has a number of licensing strategies, including those for commercial, academic and open source. The Open Source version does not come with any technical support and is freely downloadable at http://www.trolltech.com/download/qt/mac.html. It is offered under the restrictive GPL license, which means that any software you create with it must itself be open sourced under GPL. If you plan to commercialize your product or simply do not wish to make your source code available, you must use one of the commercial licenses. For more information on the terms of GNU's GPL license, go to http://www.gnu.org/copyleft/gpl.html.
Qt's commercial licenses come in three flavors: *Console*, *Desktop Light* and *Desktop*. Anyone wishing to use Qt's powerful GUI capabilities must buy at least at the *Desktop Light* level, and should probably consider the full *Desktop* version if he needs Qt's database and networking classes. The *Console Edition* is designed for those creating server or console applications. Qt's pricing is tiered based upon the number of licenses being purchased. A single license of Qt ranges from $1780 for the *Console Edition* to $3300 for the *Desktop Edition*. Note too that each platform requires a separate license. This means that a single developer wishing to create an application for both Mac OS X and Windows using the *Desktop Light Edition* would have to purchase two licenses, totaling a whopping $2990. For a detailed breakdown of Qt's pricing, visit: http://www.trolltech.com/products/qt/pricing.html.

Conclusion
As impressive and powerful as Qt is, its pricing is daunting and places it well outside the reach of the private developer. Although it is an excellent solution for Open Source developers, it is an expensive route for everyone else. It also shows its Windows and Linux heritage, as the Mac OS X port still feels more like an afterthought. For example, there is no facility to work directly with .nib files created by *Interface Builder,* to which a Macintosh developer would be accustomed. Freeware authors will likely find Qt to be the cross-platform strategy of choice, due to its richness in features and powerful capabilities. Commercial and shareware developers, however, will not find the case for Qt so compelling. With the large number of low-cost and no-cost frameworks available today, it is unnecessary to spend four figures creating cross-platform applications. Mac developers would do better saving their hard earned dollars for next year's Intel-based Macintoshes. Unless you have money to burn, or wish to develop open source software, I recommend passing on Qt.

Coming Up Next Month: **Part III: wxWidgets!**

Music and the Mac

I Love My Mac and GarageBand by Daphne Kalfon

Let me start by introducing myself. Up until January of 2004, I had been using a high-end music sequencing software package for most of my music creation. While I liked the program, it was complicated to use and I often felt that it got in the way when all I wanted to do was just get a creative idea down before I actually forgot it. Sometimes twenty minutes could go by before myself and/or my husband Richard could figure out the source of the problem with the software. Trouble-shooting was often part of the process, and I found it to be a very frustrating and time-consuming affair. Truth be told, for what I wanted to do, this particular software program simply came with too many bells and whistles, and it focused heavily on the audio side of things; my primary interest, on the other hand, had always been on the actual music creation side of things.

I was just delving into the new manual after upgrading the high-end software package I was using, when... enter Apple's GarageBand. Richard had just heard about it while watching Steve Job's Apple keynote online, and he became very excited and told me that it would be the best thing I could ever start using.

Meanwhile I was thinking to myself, gee I don't know...something else to learn, and I'm barely getting through this new manual. What a hassle!

Well, I started using GarageBand within a few days of its release, and..... wow. Music creation really can be fun again!! Don't get me wrong, those high-end programs are great; it just depends what your focus and purpose is. For me, GarageBand was *IT*. I knew this was what I was going to be using from now on, for as much of my music creation needs as possible. I was so excited with it, because I just felt it suited my needs to a tee. It was exactly what I wished I could have in a music creation program.

The beauty of GarageBand is that as wonderful as it is for beginners to use, it is just as wonderful for those with very advanced skills to use as well. I have countless years of training in classical piano, as well as many years of jazz piano, studies in film scoring, and advanced studies in orchestration, and I am able to implement all of my skills without a problem when I use GarageBand. It is such a good feeling; I can't put it into words. It feels like the sky's the limit. And with the unbelievable quality of even the sounds/loops that came with GarageBand 1, you could create your own musical ensemble with the full confidence that it sounded like the real thing. You now had a whole band at your fingertips, and it was so easy to play!

No sooner was GarageBand released, that eager users of the software started organizing themselves into online communities, and that's when http://www.macjams.com was born, along with many others. I checked around and decided to join MacJams, and that was in early March of 2004.

Not only was it exciting to be using this new software from Apple, but also now I was able to meet others online who were also new GarageBand users. The absolute best part of it for me however, was being able to have a place to post my music for others to hear. Up until then, very, very few people had ever heard any of my music, and this was a huge source of frustration to me. There were few venues for people like myself, who were not in a band, who were not a performing artist. I'm a songwriter/composer; I work behind the scenes, writing music that I hope someday, somehow, someone, either a band or an artist, or an orchestra for that matter, would hear and say "Hey, that's a great piece of music. Let's record it live." I'm still hoping that happens, and when it does; I will have GarageBand and places like MacJams to thank for it.

I posted my first piece of music on MacJams on April 2nd. The song was called "Average Joe". I got the idea for it from watching the new reality TV series of the same name. I could NOT believe how fast I was able to arrange the song in GarageBand, and I had so much fun doing it! As if that wasn't enough, I wrote another song soon after, also based on the TV series, this one called "Mr. Right Now".

Now remember what I was saying earlier about getting your creative ideas out before you actually forget them? Well, no problem with GarageBand. I was able to pound out a song in no time at all. I don't play the guitar, but the guitar sounds that came with the program worked just fine for the purposes of the song. Of course I would have loved to have a real guitar player at my services, but in the absence of one, this was the next best thing in my opinion. I was rockin'! And of course, drums and bass to boot. I'm in a band without having to actually be in one. Mind you, being in a real band can be lots of fun too...

Anyway, back to the story at hand. Then I thought to myself, "You know, I haven't even tried like one of these drum loops yet, and I keep reading and hearing all this fuss about the loops." Now with all my musical training, loops were not foremost in my mind, because I felt like I had enough skills to make my own. But I thought, no harm in checking them out.

Well, I was amazed at how good the loops sounded, and at the variety of styles they were already available in. I starting getting really excited (again) at the possibilities, because after all, I'm not a drummer, I don't aspire to be a drummer, and the last thing I want, is to get bogged down in trying to come up with an interesting rhythm on my own. These loops were awesome!!!

Which brings me to the next piece I wrote, called "Fusion". It was an instrumental piece that used three different drum loops, one for each segment of the piece. I just wanted to experiment, so I kind of loosely sewed all three segments together, instead of posting them as three separate little pieces. I had a blast improvising and experimenting on top of (and below!) the loops as they played through, and I was extremely happy with the final result.

When it comes to using loops, creativity still plays an extremely important role in the process - it's what you put on top of and underneath the loop that turns it into something no one has ever heard before. You can use a loop that's been used umpteen times before, but it's what you musically embroider around it that'll make it sound fresh and unique. In other words, GarageBand gives you unlimited options and possibilities in your creative processes.

The next tune I wrote, called "To Be Lived", was conceived when I was watching an interview with a film director, and at one point he said "Life is a series of mysteries to be lived, not problems to be solved." And I thought to myself, "wow, that is so profound. I've GOT to put it to song!" And once again, with GarageBand at my service, it was a quick and painless affair. Okay, choosing the right guitar sound and getting things to sound just right, is not always easy, and I was still getting to know my way around, but just a little trial and error was all that was needed. Also, I was able to apply some of the knowledge I had collected over time from using my high-end software, to the present task at hand.

Let me also say how easy it was to record my vocals. Recording and vocal editing, which I had done very little of in the past, was user-friendly and straightforward. I was able to make the edits I wanted, and re-recording small bits and pieces here and there was a snap. Of course having a decent mic and audio interface help make things sound their best.

This leads to the next song I wrote using GarageBand, and which brings *macCompanion* Magazine into my story. As mentioned earlier, I had recently started using GarageBand, and had also recently joined http://www.macjams.com. I was surfing MacJams and came across a notice about a song contest. I thought to myself, "This is amazing. No sooner does GarageBand come into existence that all these online GB communities start popping up, and now, song contests open to GB users! What more could you ask for?!?

As if we aren't all having enough fun as it is :)

I must admit, I do love a good contest, a good challenge, and an equally good time, and so what better than the posting that appeared on MacJams. It read:

Our friends at *macCompanion* Magazine have announced their "**Macintosh Glory Laud and Honor Contest**." The contest seeks entries composed of "4-stanza reproducible scores that would be pretty much a love song about the Mac." The contest will run until April 30, 2004. First prize is a 250 Gig *OneTouch* Firewire hard drive from Maxtor, and other excellent prizes are available.

I thought.... this is awesome! A love song about Mac computers! I'm in!

Well, the first thing I did was get to the task of writing the lyrics. One idea was how easy it is to use the Mac with any peripheral devices, so that was verse 1. The second was about how secure Macs are, and the third and final idea, was the quality of the software and the widespread availability of assistance from online communities of Mac users worldwide. And I entitled the song according to its chorus, "I Love My Mac".

Then, I thought, wouldn't it be neat to have some kind of other section in there before I repeat the chorus at the end, something unusual, unexpected, something more about Macs. That's when I got the idea that you'll hear in the song, following the third verse. I list all these different software programs, some newer, some older, that have served many people so well in all the things they do on their computers. I thought it was a great way to fill out the song, and also to make for a more satisfying listening experience overall.

Then, with the repeating choruses at the end, I thought things were starting to sound a little boring and that the song was losing the momentum it had built up so well, and just then I got this idea to start talking, or more like, interjecting some spoken word parts in-between the repeats of the chorus. Well, not only was it a lot of fun to record those takes, I found that it really worked!

These are some ideas you can play around with when you have a song kind of repeating itself a bit too much. *Variety for the ears* is the name of the game. Even if your initial concept is a very simple one, you can keep it fresh and interesting just by putting in some simple variation.

I finished the last of the vocal recording and editing and general tweaking of the song the day before I was going out of town for a few weeks, the same day which was also the deadline for song entries, so it was crunch time! But again with GarageBand, no problem. I finished the song that night and posted it on MacJams, but most importantly, I uploaded it to *macCompanion* along with my contest entry.

Well, as I was away, I checked in on the song at MacJams whenever I got the chance. The online community was increasing in number and new songs were being posted every day, along with "I Love My Mac" which I could see was quickly becoming popular on the site. It was so exciting to be able to read comments from listeners and to see how the song was being rated in comparison with other songs. What a novel experience for someone whose music had hardly been heard before. I was just too happy to know that my songs were actually reaching even a small segment of the public. It was a good start.

As it turned out, few entries were received for the contest; I was awarded first prize and another song was awarded second prize. I couldn't have been happier. The hard drive I won has come in very handy on many occasions since, and I am so thankful to the people at *macCompanion*

Magazine for the song contest. Without it, I doubt I would have ever thought of writing such a song as "I Love My Mac".

I hope that my introduction hasn't been too terribly long-winded. Next time I will get into the more "user" aspects of GarageBand - things that I do to create my own music.

Thanks for reading,
Daphne Kalfon

P.S. Keep a lookout for "I Love My Mac" - it will be on the CD-ROM that comes with the November 1st issue of *MacAddict* Magazine! And check out www.ilovemymacthesong.com.

Musings From Mars

For Shame! Some Federal Websites Now Requiring IE and Windows by Leland Scott

http://www.musingsfrommars.org/

The first instance I knew of this was the new Grants.gov website that OMB commissioned last year as one of the Federal Government's well meaning e-Gov initiatives. A good idea in theory, the site would consolidate all grants throughout the Federal Government into a single portal, letting citizens do one-stop shopping and use one standard form whenever they wanted to apply for a Federal grant. In practice, though, the Feds were in a hurry to complete the work and were able to be convinced by the IT contractor in charge to make a system that could only be used with Windows systems.

It was clear to me that this was a Very Bad Idea. I shared that opinion with decision makers in my agency, some of which felt the same way. After all, many of my agency's grantees are university professors, and the academic world has resisted Microsoft's hegemony to a much greater degree than corporate America. It's not unusual for Macintosh and Unix systems to make up 30% or more of the desktops at a typical U.S. research university. So now, this system, which eventually everyone who wants Federal funding will have to use, is dictating what kind of computer citizens should have. This, despite the fact that the Grants.gov system uses the cross-platform PDF format for application submissions! These people probably don't even know that Mac OS X is the friendliest platform for PDF making and viewing of all! The culprit is the commercial PureEdge Viewer, which should never have been allowed to dictate the system requirements for a Federal system as important as this one. The PureEdge Viewer can only be used on Windows 98, ME, NT 4.0, 2000, XP. (See here for the details.)

OK, I thought... surely this will be an isolated incident.

But two new systems I learned of in the last month have convinced me otherwise. In August came news that the U.S. Copyright Office of the Library of Congress was planning to change their system for online submissions to restrict use to Windows users only, and even worse, to only those using Internet Explorer. Now I ask you, where have those guys been the last 2 years? Why would they ask a public that's in the midst of switching from IE and Windows to safer alternatives to stick with virus, adware, and worm-prone systems? Shouldn't the government be encouraging just the opposite?

And what was the Copyright Office's explanation?
The office says its browser choice is limited by the commercial software package it will be using to manage the registration system, as well as the time needed to test other browsers.

This is a family blog, so I can't spew forth the words that immediately come to mind. With my long background in web design and programming, I can tell you this is the argument of extremely lazy programmers. Also, of programmers saddled with use of an expensive, behemoth system like Siebel for managing their back-end office. It turns out that the version of Siebel they're using requires Windows and IE. Of course, the question that rises for me is, "Who were the idiots that decided Siebel was OK, given its platform restrictions?" It's just this kind of short-term thinking that IT planners should be striving to avoid. To build a system that only allows one kind of computer and one kind of browser--both by the same company, I should add--is to forever lock yourself out of alternatives should the need arise.

And with the proliferation of security problems in supporting the Windows platform lately, I would think a lot of all-Windows shops would be rethinking their reliance on a single vendor for their technology platform.

But not in the Federal Government, it appears. Just today I learned that FEMA (The Federal Emergency Management Agency)--in the midst of its greatest crisis ever with Hurricane Katrina--somehow built a public-facing web system that can only be used by citizens using Windows and IE. Does this mean that everyone else who is struck by disaster will have to run next door to use their neighbor's computer? Oh! But of course their neighbor is embroiled in the same disaster and is unlikely to be sympathetic to someone who chose to use a Mac system or Linux.

Sounds very much like discrimination to me... And our Federal Government should play no role in deciding what computer operating system we use at home. Or what browser we use with it. Web standards have always been designed to support a heterogeneous public, with the goal of universal access and communication as one of the web ideals. To build a public web system that restricts access is to play directly into Microsoft's game plan, which of course has been to co-opt the web as a Windows-based system.

Mac users have had to put up with private companies who've done this sort of thing for too long now... companies whose programmers were short-sighted (and yes, lazy) enough to use Microsoft-provided development tools, which of course are designed to build Windows-only web sites. Microsoft's proprietary extensions to JavaScript (a technology originally engineered by Netscape, you'll recall) and their opening of the security nightmare of a Pandora's box called Active-X provided just the sort of cool tricks that clueless programmers would tap into using Front Page and/or Visual Studio. (Remember when you were a kid, and your parents warned you not to trust strange men who offered you candy? Seems some people can't recognize candy being offered by strange men when they grow up.)

So today, I finally sat down and wrote my Congressmen--all three of them. Both Senators, and one House Rep. You can, too, by visiting the easy-to-use web sites at this page for the Senate and this page for the House. (Thanks to the editor of MacDailyNews for providing the news articles and the links to the Congress contact forms!)

Enough is enough! Mac users really need to let their Congressmen and women know that they won't be shut out of using web systems build with taxpayer money for all citizens to use. If you feel the same, I urge you to use those links and let your representatives know.

Here is the text of the email I sent earlier today:

> Hello,
> I am moved to write because this is the second instance in two months where a federal agency has decided on its own that the public must use a Windows computer and Internet Explorer in order to take advantage of their online services.

Last month, the Copyright Office issued rules proposing that online applications would have to be submitted using Windows and Internet Explorer. Today, I learned that FEMA--in our greatest time of need--has a web site that makes similar demands on the public. Last year, OMB and a consortium of Federal agencies built Grants.gov, a website that only allows Windows users to submit grant proposals. This trend is bad for many reasons, not the least of which is that such systems discriminate against users of other browsers and operating systems.

This is anathema to the whole idea behind the World Wide Web. It was designed to be totally platform-neutral, so that anyone with any kind of computer could communicate with anyone else on any other kind.

Not only that, but it's become clear in the last couple of years that Windows systems are highly dangerous to take online, because they are so subject to viruses, worms, and the like. And of the browsers one could choose on Windows, Internet Explorer is by far the most exposed to these hacker tools.

I use a Macintosh both at home and at work, a choice I've made because it's easier to use, is faster to use, and is not prone to viruses etc. Despite what you may have heard, the Mac's immunity from viruses is not a function of its status as a minority computing platform. It is fundamentally more secure than Windows, and Microsoft's mistakes with ActiveX and other Windows technologies are the reasons why this country is spending so much money to protect our computers today.

My request today is simply to stop federal agencies from writing web applications geared to one browser and one computer operating system. The World Wide Web Consortium has issued standards for web pages and applications, which, if all browser makers adopted, would realize the cross-platform vision of the web's founders.

It's useful to remember that the technology that enabled the World Wide Web was originally designed on the operating system that is the direct ancestor of Apple's Mac OS X. Like other Unix operating systems, Mac OS X is far superior to Windows in many respects, and Apple's user interface is a marvel of ingenuity and innovation.

The federal government should not be taking any steps that limit competition in these areas and should, in fact, be encouraging companies that make products which can help reduce the rising cost of maintaining computer security today. That rising cost is directly attributable to the mistakes of one company--Microsoft. Yet it is the public that bears the burden.

Thank you for listening. Please help make sure Federal websites remain open to all citizens.

Regards,
Leland Scott

MacNightOwl

The Apple/Intel Report: Staying Out of Touch by Gene Steinberg

http://www.macnightowl.com/

Sometimes I think it was all a dream. I was sitting in the press box during June's WWDC keynote and heard Steve Jobs explain some of the basics of Apple's planned switch to Intel processors. I then read the stories about his press conference last week in Paris, in which he said the company was on track to deliver its first Macs with Intel Inside, MacIntels, or whatever, by June of 2006. Nothing so far sounds especially new and different, right?

But then I wonder, but only for a moment, if what I saw and read is really true. Maybe I'm the one who is dreaming, and some of the others are seeing a glimpse of reality. But I doubt it!

Right now, a story is making the rounds that Apple is engaged in a concerted push for favored treatment from Intel so it can get a hold of two proposed processor families early, before the official release. Now correct me if I'm wrong, but doesn't Intel begin to sell new chips as soon as they have enough to ship? Why would they hold them back and how would they be able to deliver the parts to Apple ahead of the planned release? Sounds like a contradiction of terms here.

Of course, the story has no authority. Certainly Apple isn't going to comment on future products until they're ready, or almost ready, to ship. Intel's future processor roadmap is very clear, and you can easily look it all up if you're curious. I'm sure if Intel managed to beat its forecasts and get a product out earlier, every one of its customers would have a chance to get in on the deal. Why not? So what would Apple seek to gain by insisting on the impossible, or is this just another thread to support the contention that Steve Jobs makes impossible demands?

So what impossible demands did Jobs make of IBM, beyond shipping its chips on time and in sufficient quantities to fill waiting orders? Is meeting a commitment an impossible demand? There's also talk about what discounts Apple is expecting from Intel, suggesting that Jobs wants to pay less than Dell or HP, even though he's going to buy less chips. Well, nothing wrong with making the best deal you can, but I rather expect pricing was already arranged when Apple agreed to cast its lot with Intel. How could it be otherwise? Would you commit yourself to ordering all your components from a specific supplier without knowing the price?

All of this stuff strains logic.

Then we heard the stories, and these were apparently true, that some crackers managed to make the developer version of Mac OS X for Intel run on vanilla PC boxes. There was a subsequent report, not confirmed, that a new release from Apple closed the loophole. But the real story comes again from Steve Jobs, who made it perfectly clear in last week's meeting with the media that the x86 version of Mac OS X would run strictly on Apple hardware. End of story!

Now I suppose it will be possible for some clever crackers to figure out how to make it happen anyway, and no doubt there's a small clique out there who will announce a successful achievement. All this with the illusion of saving a few dollars and making Mac OS X compatible with the cheapest PC in the land. Of course, they forget that there's the issue of driver compatibility, and what difference will it all make if you can't make your optical drives, printers, scanners, digital cameras, iPods and what not function? The time it takes to make even some of those devices compatible, assuming it was possible, would be worth a lot more than any alleged premium they'd pay simply to buy a new Mac and be done with it.

Of course, just buying and using an off-the-shelf computer with its preloaded operating system may not seem quite so attractive to people who do such things. It won't satisfy their egos near as much as defeating the copy protection devices that Apple and Intel put in place, even if the end result isn't so perfect.

There's always the hope, however, that once they use a hacked Mac, they might just find it within themselves to want to buy a real one.

And just one more thing: The stories that Mac sales would stop dead in their tracks as a result of the impending Intel switch don't seem to be true, at least so far. Industry analysts still claim that Apple's going to continue to boost market share. Now maybe, in the final months prior to the release of the real MacIntels, things will quiet down as folks await news about the new products. However, some savvy marketing ought to minimize the impact. For one thing, strong price reductions on existing products would help move existing inventories, and slowing down production lines gradually as the product introduction approaches would ensure that only a small number of unsold units are left in the sales channel. Careful preparation will minimize any serious sales impact.

Now I wonder what tall tales about Apple and Intel will arise next. Inquiring minds indeed want to know.

The Mac Attack - Mac Tips, Tricks, and Hints

There are two types of computer users… by Steve Stanger

http://themacattack.us
http://www.stevecom.com

My first article for the *macCompanion* is going to closely echo my first *The Mac Attack* podcast. It is something we all know we should do and don't. It's backing up your important data.

There are two types of computer users. Those who have lost data and those who will lose data.

If your computer has a CD or DVD burner you have no excuse for not backing up. The easiest way to back up is to drag and drop your files on to blank media and burn it. OS X makes it really easy to do this.

You don't need to back up everything on your hard drive, such as system files and applications, but do remember to back up anything that cannot be easily replaced.

Examples of files that you should be backing up:

- Any files you create – Word docs, resumes and reports, saved games, spreadsheets, and slideshows. I think you get the picture. Oh yeah, don't forget to back up your digital photos too!
- Your email account files, including mailboxes, contacts, and account settings.
- Bookmarks or favorites. Depends on your browser.
- Your mp3's and music files.
- Financial records.
- Stuff on your Desktop.

If you don't happen to have a built in burner you do have options. External Hard drives, external burners, thumb or flash drives, email, yes believe it or not, email. For example, with a Google Gmail account you can send yourself up to 2GB (gigabytes) of files and they are stored on Google's own servers. You can then access those files from any computer with an Internet connection. The email option is the cheap, down and dirty way to do backups, but at least it's a back up. (If you need a Google Gmail account invite you can email me at sstanger@maccompanion.com and I'll get you one. Google keeps on giving me invites so I keep on giving them out.)

There are a number of options to automate your backups - from shareware to commercial software. Here are some options:

- Dantz Retrospect - Home and Home office edition. A very robust back up application for your home or small business.
- Backup – This software comes with your paid subscription to .Mac (dotMac). Very easy to configure, multiple options for backup to either media or your .Mac account.
- ChronoSync – Not only is this software great for backing up your data but it also allows you to sync data between multiple Macs.
- Carbon Copy Cloner - A backup/cloning utility for Mac OS X. This application can make a bootable copy of your hard drive.

These are just a few examples of applications that allow you to automate the back up process. There are many other backup programs that offer different options. The idea here is to find an application that you find easy to use. You can find more shareware back up applications at versiontracker.com.

No matter which back up solution you choose you will always want to check your back ups. You are checking to make sure you are able to retrieve the data you backed up and that you are backing up all the files you need.

This is your first homework assignment - it is to memorize this mantra, repeat as many times as necessary. *I will back up, I will back up, I will back up…*

Click away. Be safe. Have fun!

For more information about this topic and other Mac tips I invite you to listen to my weekly podcast at http://themacattack.us

Views from the Ivory Tower

Not Everything is Perfect, the last Boston Mac Expo and the iPod nano by Ted Bade

One might think, after reading my articles, that I believe the Macintosh to be a perfect computer, Mac OS X a perfect OS, and Apple Corporation to be a perfect caring company. This is not the case. I do believe that the combination of Mac OS X and Apple Macintosh computer hardware makes an excellent combination that performs well in most cases. There are aspects of using my Mac that I don't like or that I find clunky. Luckily, using a Macintosh is easy enough that I can usually find some program or utility that suits my particular fancy, giving me the ability to use my Macintosh system as I like.

While this might be true for any operating system, the diversity of hardware used to make a WinTel box, often even from the same manufacturer, makes this more difficult and requires considerable more knowledge on the part of the user. Alternatives to Windows, namely Linux, suffer from the same diversity of hardware issues.

While on one hand, having a variety of hardware is good for the computer industry, the fact that Apple controls both the hardware and the software of their systems, means that things work together well. This takes a lot of guesswork out of the picture, for both the user and the developer. Sadly, this also means that the Macintosh will probably never be the top operating system. Apple depends upon this diversity of hardware to foment the development of new hardware options from which it can include in their systems.

As we head toward the date of the first commercial Intel-based Macs, the controversy of being able to run Mac OS X on any Intel-like box rages. Surely there are going to be people who think that Apple's stand on this is stupid, people who just want to buy Mac OS X and run it on their current box. While I am sure that there are some financial aspects to Apple's stance of not allowing the Mac OS to run on any box, there is an important aspect of ease of use as well. Just as before the Intel chip, if Apple controls the hardware and the software, then they can make the hardware and software work well together. Neither they nor the user has to deal with the headaches of massive hardware variations that plague the WinTel market. I am certain that some enterprising programmer will come up with some way to make Mac OS X work on a standard PC box. I am also certain that what this person creates will never work anywhere as near as efficiently as a real Macintosh.

What I would rather see being developed is a software package that gives one the ability to easily boot into an alternative OS. This system would not only give me an easy way to flip between different OS's running on my machine, but would also provide the code necessary to take advantage of the Mac's specific hardware, thereby improving the experience of using this non-Mac operating system. There are those of us who need to use Windows on occasion, when our jobs require some application not available for the Macintosh. There are others who enjoy trying the features of different operating systems. Wouldn't it be fun to have a box that was able to boot into a variety of operating systems? I think it would be, especially when I know that, with a flip of a few keys, I could easily return to the safety and comfort of my favorite one! [Editor: Please don't suggest VPC 7, okay? One guy has practically every computer OS on the planet on his iBook using Connectix' older version of Virtual PC.]

Music prices - Apparently, the "Music Industry" would like to charge more for certain pieces of music then for others, now that people are getting used to the single song-buying model. Since the license agreement Apple made with them is due to expire next spring, the music industry is trying to increase prices. Apparently their argument is that not all music is equal. Some pieces are longer or more involved then others. They want to charge more for pieces that are more involved (and probably those that aren't but are by more popular artists). Steve Jobs was quoted as calling them greedy, at the European Macworld Expo in Paris in September. He firmly believes in the single pricing structure model. He also points out an interesting thing. The recording industry is competing against music piracy. Think about it, if they change the way music is legally purchased, making something more expensive in this case, people would be inclined to acquire it in another way. I am certain that this already happens with music that is not available with the ITMS. Can't buy it there; download it free off the Internet!

The recording industry already makes more per song then it does when it sells a standard CD when then sell through the ITMS! But of course they want more! They also indicated that certain songs could be reduced in price. Yeah, there are some pieces available that few people would buy, perhaps those pieces of silence the ITMS already sells for 99 cents!

I just hope, for the good of the consumer, that they iron out the bugs. I don't mind paying the same price for every song. $1 is a good price and I consider it to be fair as well as consistent with current pricing of the hard CD media. I think that varying prices would do nothing except for making more money for the record labels. I seriously doubt that the artist would see any of the increase. But that's my opinion, how do you feel?

You can read an article on this by visiting:
http://www.macworld.co.uk/news/index.cfm?NewsID=12716.

MacWorld Boston, we hardly knew ye - IDG Corporation decided to stop the MacWorld Boston exposition, after only two shows. As reported in ZDNet online, (http://news.zdnet.com/2100-9595_22-5869536.html). According to the article, Expo spokesman Mike Sponseller, indicated that there was not enough demand for future shows. Bummer. I managed to attend the first return of the Expo in Boston in 2003. It had a really bad turnout, although the classes and seminars were terrific. I am certain that people will miss them. A show like this needs sponsors and a lot of interest. Apple refused to support the Boston show and a number of other key vendors didn't thinks the show was worth showing for. Oh well, guess I will have to watch the SF Expo at the local Apple store to get my show fix! [Editor: East Coast MUGs unite and take up the slack like the MUGs on the West Coast are doing with Regional Expos.]

iPod Nano conflict - There has been a lot of talk about Apple's new iPod device, called the *iPod nano*. Financial pundits have been touting it as the greatest thing for Apple. For instance, in an article on the Forbes site (http://www.forbes.com/markets/2005/09/26/apple-computer-ipod-nano-0926markets06.html), a financial analyst company UBS thinks the *iPod nano* could be a "Key Product" for the Mac and has raised their rating of Apple's stock based on this. However, all it not well with the iPod. There are a number of complaints that the display of this device is very easy to break, or perhaps the display cracks due to some physics aspect of the *iPod nano*. Apparently several people have claimed that the display cracked without any rough handling on their part. While I hope this isn't the case, it sounds likely considering how thin the device is. We will have to keep our eyes open to see what the next few months bring. Was there a bad production run or is there a design flaw, or are there a number of careless people using a group excuse? Only time will tell.

In the mean time, one magazine did a stress test on the *iPod nano*. Well, perhaps one should could it an over-stressed test. Visit the *Ars Technica* site and view the article about the *iPod nano* (http://arstechnica.com/reviews/hardware/nano.ars). They not only tried killing their *iPod nano*, but dropped it, tossed it, and even ran it over with a car!

The article is a great review of the *iPod nano*, describing how it works and including a number of great photos. The stress test part is kind of silly, but worth a read, since the device manages to still play music even without the display. If you are into hardware, they do an autopsy on it after it is truly dead, so you also get a look at what's inside. A real geek article, but worth a read.

Mad As Hell: Finale

[Editor: This article is based on four months of blogging episodes over on the *Security Awareness Blog* http://www.securityawarenessblog.com/
and no doubt will become a *Switcher Classic* and is reprinted here with permission. And yes, I kept the somewhat "colorful" language in this time, so we would be able to retain permission to publish. It is just that once folks move to the Mac, they realize what dupes they've been for years and they can be forgiven once in a while for strong language, can't they?]

Part I: Winn's Recommendations and Part II: Winn's Total Cost of Ownership Analysis by Winn Schwartau

http://www.securityawarenesscompany.com

I'm now a 136-day-old Mac aficionado. (Or thereabouts.)

Then again, here I am in Paris (no, St. Tropez… now Monte Carlo), moving my daughter here for a year of study at the Sorbonne, and every other person on the street asks me for directions or restaurant recommendations. I answer them all. (But that one obnoxious couple from Chicago is going to have a rude awakening when they try to eat in the sewers.) My French isn't so bad, and fooling *Les Americains est tres facile*.

Whatever.

Here's what I think you should do if you want to maximize a carefree and secure personal computer existence. Remember this is all IMHO.

Winn's Recommendations

Ma, Pa, Home and SOHO Users

I am a security guy, and for basic day-to-day computer use I am 100% convinced that Mac is the way to go. No question about it. WinTel isn't dead by any means, but the decline of the Empire has indeed begun.

This does not make me a Mac Zealot or anything, but they did it more right than the other guys since DOS 6.x. I am not going to hold my breath for Longhorn-Vista anything to be right, and honestly, for my own use, I don't care. I've been burned too many times and I have committed myself to ending the cycle of abuse hereafter known as the Redmond Syndrome. (See http://www.nwfusion.com for my latest on that. Or maybe Greg posted it here, too. [Editor: Greg Hoffman.]) Of course, I will put Vista on one of my laptops to learn about it, but not to use it. Big difference.

T'any rate, here goes my Top 10 Mac Security Benefits:

1. I cannot come up with a single reason that 98+% of the computing public should ever buy a PC again. You don't need them. That being said, my CTO pointed out in all fairness that if you plan on working in the real world, you should also have a real-world working knowledge of Windows. However, as the application formats for Mac, Win and Linux become more compatible, there will be far more user experience similarities than differences. Remember my Mad As Hell predictions for what will happen in mid-2007.

2. You do not need the headaches of spyware, viruses, worms or other malicious software that is the bane of WinTel. You do, though, still need to guard against ID Theft and phishing. Of course, as some folks predict, if MacTel (et al) becomes widely successful, it will become a Big Target. Maybe. Point being (IMHO), if that does occur, I would rather have a huge Open Source community working on a rapid fix than a cloistered 'if-then-maybe' response from one company. Mac is Unix at heart.

3. You do not need to learn how to configure permissions and rights for day-to-day use. Administrative rights are a privilege on a Mac; you need to ID yourself to the system to do things that could harm it. WinTel is the exact opposite. Vista makes promises.

4. Pop-ups should be a thing of the past no matter what you do; just never use Internet Explorer. (Well, except for Free Porn. If that's your thing, set up a limited privilege user account called Free Porn. That'll do it.)

5. You do not need the fear of hackers breaking into your machine with decent reliable internal firewalls. So far the Win-firewall is OK. My worry is that it becomes so integrated into the Win environment that a successful attack/hole/vulnerability on other OS components will knock it down. Remember Redmond's claim during an anti-trust trial that they couldn't remove IE from Windows? Hell. My 11 year old could. Average computer users should not even have to think about this, no more than they worry about their refrigerator exploding. I like appliance theory, remember?

6. You do not want to reboot daily, with the very real possibility of additional system corruption. It sucks, reeks of poor design, and is a waste of time and energy much better put into skiing.

7. You do not need the complexity and infinity of variations that WinTel offers, but so few of us really require. KISS. Bill Cheswick calls a Microsoft simpler OS that meets the needs of most users Windows OK. Meaning it should work reliably and securely. Of course, there is the Mac.

8. You don't want to have to perform constant system maintenance, worry about registry conflicts or resources chewed up by insane Startup processes. Amazing how much time I have regained.

9. You do not need anything getting in the way of your business or entertainment. The freaking Mac works. Every time.

10. Macs are as cheap as $500 so I don't want to here the price argument. My CTO correctly points out that a $500 Mac is really entry level, and you do need a monitor. It will be the 'bottom of the Mac barrel' in terms of specifications and performance. But if all you need is e-mail, the Internet, music and picture filing and sharing, and some basic word processing, it will do you far better in my humble opinion, than a bottom of the line Dell. See my Total Cost of Ownership study. I strongly encourage you to learn and perform your own TCO before you buy or switch. That way I am off the hook.

If you are like my neighbors and friends, more than likely you do not need a WinTel machine and its associated headaches. However, there are some applications only available on WinTel. I never said to Dump WinTel, especially for application junkies. Just be aware of the true pros and cons and not MS or Apple marketing BS. I own stock in neither and use them both when appropriate. So don't misquote me or call me a Jobs clone. Read Mad As Hell and don't assume.

More Reasons I Have Come To Like Mac

1. You will save a lot of money by getting a Mac. A whole lot. See my Total Cost of Ownership chart and do your own math. The results surprised the heck out of me.

2. You will save a great deal of time if you buy a Mac. Don't listen to Dell or HP or Toshiba unless you are fluent in Hindi.

    i.   Listen to me.
    ii.   Listen to Mac users.
    iii.   Try to find one unhappy Mac user.
    iv.   Try to find a serious security problem with OS X.

3. That unquantifiable, yet very real, pain and anguish, which turned into intense Fear and Loathing for many of us, will become a distant memory. Like that of the Catholic nun rapping my knuckles till they bled. (Another story…)

4. You will not hate computers if you buy a Mac. Too many WinTel users curse their machines as I still do. Mac users don't. (Except I do love the two-button mouse and the Sony Vaio screen is unbelievably beautiful.) I am ever surprised at my increased overall mental health. Talk to Cyber Shrinks. Ask 'em.

5. Your security concerns will diminish something like… 99.9% if you buy a Mac. I still am flabbergasted that I was too damned obstinate to see the light.

6. Things work. No geek skills needed. If you want to get under the hood, then you have Unix, a 25+ year old, tried and true operating system. Geek out.

Geeks

Do whatever the hell you want; you're a geek.

There are tons more geek and hacking and sniffing and snorting tools for WinTel and Linux than for Mac. This means you probably like cursing the BSOD [Editor: Blue Screen of Death] and blogging about Bill. Me? I don't have the time or inclination. I want to get my work done then go write a book (fun!) or ski (lotsa fun!) or…. Whatever.

I, too, will geek Vista, maybe Vista 1.1X or SP1 or something. But that's going to be on a Sacrificial Machine, not on a production or mission critical one. No way do I have the time to be a guinea pig.

You might well find, as our CTO and I have, that there is definitely room for both. I don't have a perfect answer, but I am a much happier, kinder and gentler person after having split the functions of my machines.

Small Businesses, SOHO and Ma&Pa Businesses

I see no reason for you to ever buy a PC again. Networking is entirely too simple for people who are used to battling network protocols and security issues. But, you might still want WinTel if:

1. You have WinTel specific application that can only be run on WinTel. If so, still look for alternatives. There is almost always a way. PC emulation will only get better when Macs go Intel.

2. Your 'Normal' usage requires that you interface with WinTel only systems that prohibit Macs. Unlikely, but then what do I know?

3. You can afford a full time security officer, network manager or have someone with these skills on call. Budget yourself accordingly.

4. You and your business can afford the downtime.

Security-wise, WinTel is the overpriced, overly complex, poor security choice. I was seriously surprised to discover how many top-talent security professionals use Macs as their day-to-day machines.

Corporate

I have talked to many Corp CISOs about the security issues that they face and the WinTel versus Mac battle. Lotsa corps are going Linux. They are mad as hell and made a decision.

Many of us have friends who ask, "what kind of computer should I buy?" and those of us who have some clue always (should) ask, "what do you want to do?" (I use to say Dell, but never again; not cause of WinTel, but because their sales and service went to Hell.)

Same questions here, though: What do you need? The Corporate environment for most workers is pretty simple:

> Microsoft Office
> Email/Surf & Turf
> Client access to XML/HTML/Intranet (IP based)
> Lotus Notes works on a Mac.

Try a migration in guinea pig department. Then expand. Your user desktop Master Build will be far simpler and less costly than you can imagine.

Now, on to how I went about calculating the Total Cost of Ownership of WinTel versus Mac.

Winn's Mac/WinTel Total Cost of Ownership Analysis (TCO)

At home, Ma&Pa only want to e-mail John and Mary, buy fake jewelry, go to eBay, Amazon and CNN. They want to open a computer, do something simple, and then move on with their lives. It should be effectively no more complicated then cooking a dinner reasonably well.

In the financial world availability is paramount - at the desktop, too - and there are some pretty serious discussions on making major shifts in the corporate desktop environment. The rational is simple. Downtime is real money. Bob and Sheila lose productivity and the company loses money when their system crashes. (Availability = Security.)

Since I didn't know the true answer, and couldn't find one anywhere else, I figured it was about time a Total Cost of Ownership (TCO) analysis was made available to Ma&Pa and the Corporate World. Of course there are vendor specific TCO rants, but I don't believe vendors. Plus, I wanted you guys to be able to perform your own and not listen to me.

[Editor: Download the Excel Spreadsheet at http://www.thesecurityawarenesscompany.com/TCO/Winn%27s%20TCO%20WinTel%20vs%20Mac.xls and follow along with the *Total Cost of Ownership* model:]

The Cells & Columns

The only cells you can mess with are the Yellow ones. The others are protected. The totals are in Blue. The really important totals are in Red.

Cell C3: Enter what you value your time at. At work it might be more than at home, or maybe the other way around. You pick it. I picked $25/Hr. just to be reasonable. But what made me so Mad as Hell was that my time is a lot more valuable than that and I couldn't afford it anymore. Once you choose and enter your time value, see what happens to your TCO if you have zero trouble OR if you value your time at $0. It's quite interesting and will make you think a bit more than with anything I could suggest. The numbers speak for themselves.

Columns B & C are for hard costs of hardware, legal software purchases and subscriptions for a couple of years. I am assuming a computer ownership of a maximum of 3 years. It's a relic after that.

Columns D & E: How long does a particular task take? Everything takes time, and easy tasks go faster than harder ones. Enter what you believe is the Minimum and Maximum amount of time it will take to perform the tasks for a WinTel that are in the 'A' Column. Use your own ideas, not mine.

Columns F & G: Same thing; the amount of time required to perform these tasks on a Mac. Use best estimates or ask Mac users.

Columns I, J, K &L: These are automatically generated multiplying your hourly value (Cell C3) times the amount of time you estimated. I & J are for WinTel and K & L for Mac.

1. **Initial Hardware Cost – LINE 8**

Before everybody beats the crap out of me on this major important point, the first spreadsheet, *"Winn's Mac/WinTel Total Cost of Ownership Analysis"* is based upon the real, honest-to-God numbers I experienced.

These are real numbers I paid, with no favors, between roughly equally performing Dell (great keyboard and sound), Sony (incredible screen) and my Mac (which never fails). All are 17" laptops with at least 1GB RAM, CD/DVD *ad tech nauseum*. This is what I do and I am somewhat security paranoid. I wanted to be fair to you and myself since (as far as I know) no one has ever done this before.

I am well aware that numbers fluctuate, but buyers also need to be aware of the endless BS put forth by vendors. The most egregious recent one in the WinTel world is "512M RAM + 64M Shared RAM." In short, to save some manufacturing costs, vendors steal 64M from an already anemic 512M yet are not clear as to what is really going on. Not criminal, but I asked a number of my non geek friends what it meant and they thought it sounded good because it was some Intel thingy-mabob with more RAM – not less. Ma&Pa have no clue and less of a clue as to what to ask. So, those with the least clue and the greatest need get the crappiest machines.

That being said, in "*Winn's Mac/WinTel Total Cost of Ownership Analysis*" spreadsheet, enter your own numbers and get off my back. Current Macs - Pre MacTel - will continue to be ~20% more in sheer hardware costs. Maybe more. MacTel world +? Who knows. I expect cheap and a small Redmond earthquake.

OK. The small, $500 into Mac? I wouldn't buy one for my needs … except! If all I wanted was e-mail and eBay or Amazon and "what does performance mean?" – I would buy it all day long. It's as reliable as a 2 cylinder Honda. Slow. Yup. Reliable. Yup. Affordable? Yup. If you can afford more, get more RAM or a better Mac. Not a PC. (Geeks excepted.) (Oops! That $500 means you also need to buy, beg or steal a monitor. Figger free to $125.)

WinTel Vendors I Know

- **HP and Compaq**. A technical Wal-Mart disaster aimed at Ma&Pa. Too much proprietary crap. 4-6 weeks for service if you're lucky. Please! Do yourself and the Internet a favor: Forget Them. You will hate yourself within 364 days.

- **Dell**. Used to love 'em. But since I needed to buy a ton of servers, and I complained about their service, and I named names, and their Customer Service requires a course in Hindi Berlitz, to hell with 'em. Michael should know better. It's just not worth it anymore no matter how much they say otherwise. My brother in law worked there for 102 days and he says Dell Hell is a US sales sweatshop (no more than 19 minutes per customer, then just hang up) before you get to New Deli service.

- **Sony** rocks. Great WinTel machine, but miserable customer service. "Our machines don't break. Must be you, you idiot!" Four equally incompetent engineers were sent to my office, at their expense, to officially concur that my motherboard had failed. I tried to save Sony the cost and headaches by telling them what was wrong, but they screwed themselves.

- The small WinTel companies are far, far better, technically and service-wise. The Chinese bought IBM. Your call.

- Customer service isn't free anymore. Check out the prices per minute or per call or per incident. I have not even included them here because I can't begin to fathom how much they earn the vendors. Why do they do this? Because there is so much service on WinTel boxes, they couldn't afford it any more.

Apple Service So Far

- The crappy, cheap low voltage cord from the adaptor sparked. My daughter received a new one. The next day. In English. No questions. No fee. That is service.

NOTE: In Lines 11-27, I also include cells for you to add time for the purchase of hardware and software if you wish. I count it because evaluating, choosing and actually purchasing all of the software you need takes real time. Some people spend hour upon hour reading and spec-ing machines. Even experts need to stay on top of the current versions of what works and what doesn't work, and that takes time.

With the Mac, you need less software so your time investment is minimal.

2. **Microsoft Office.   Buy $: Line 11   Install Time: Line 30**

I like it. It works. Occasional crashes, but keep on auto-save at 5 minutes. RTFM are the four most important letters any Ma&Pa can learn.

From what I have seen, I can buy a single copy of MS Office for Windows ~$300. I actually bought a 3-person license for MS Office for Mac for $179. You do the math.

Linux dudes: Sure, Open Office and others are free. And they kinda well. When they are ready for prime time, (summer 2007) I'll maybe include them for Ma&Pa. In the meantime, it ain't all there. Installing Office on my PC takes a lot longer, like twice what it does on the Mac. Dunno why. Don't care. Just the facts.

3. **Anti-Virus: Buy $: Line 12   Install Time: Line 31**
In the WinTel world, anti-virus software is not an option. Period. www.grisoft.com offers free A/V software. www.mcafee.com and www.symantec.com are the leaders while www.trendmicro.com offers both products and free on-line scanning. Budget $30-$40 or so per year, and make sure you update the signature files daily. Anything less is insane. Installation time will vary. Experts 15-30 minutes. Novices 15-60 minutes. Updates should only take a couple of hours per year. http://www.antivirus-software-reviews.com/ seems to be pretty fair, too, or try http://www.consumersearch.com/www/software/antivirus_software/reviews.html

I actually downloaded an anti-virus program when I first got my Mac. Then I erased it. I have spent "zero time" on viruses or worms. Your call. http://www.pure-mac.com/virus.html.

4. **Anti-Spam: Buy $: Line13   Install Time: Line 32**
Spam sucks. Waste of time and resources. Since ISPs have been filtering more spam for us, the problem is better than its peak in 2003. Some e-mail clients are pretty good at additional filtering, and some are pretty aggressive, like Mail on my Mac. My flight confirmations from Continental always end up in Junk as does much mail from my wife. (Selective filtering?)

I don't use a spam filter even though I should because I want to watch how the native Mac will handle things over time. But that's me. You might want to spend a while picking some anti-spam products from www.ihatespam.com. Time? About the same as anti-virus. $20-$40. For the Mac? With a decent e-mail client, you can get away without it. On the other hand, kid-friendly parental monitoring software is a reasonable option for their accounts. Check out http://www.matterform.com/welcome.php and http://c-command.com/spamsieve/.

5. **Personal Firewall: Buy $: Line 14   Install Time: Line 33**

For WinTel, I really don't think there is a choice but to add a firewall to your computer, even if you are using XP. I do and therefore, so should you. _ In WinTel, I do not like to rely upon the native firewall for the same reason I don't use Outlook for e-mail or IE for the web. It's too much of a target that may (read: may) be more vulnerable because of its integration into Windows.

First, visit Steve Gibson's www.grc.com for a scan of your own security profile. It's free and Steve doesn't capture your ID or data. It's just a nice non-vendor service.

Even if you have a home network with a hardware firewall in your router, access point or broadband modem, you still should install a software firewall to protect against outgoing malicious code. $20-$50, about 30-60 minutes for download and installation. Then there is some configuration to do. Also, some of the major vendors charge up to $3 minute for customer service. A good unbiased comparison of personal WinTel firewalls is at http://www.securityfocus.com/infocus/1750.

On the Mac, I use the native firewall, and since I am so much less susceptible to outgoing hostile code, I don't worry. There several you can use, if you want and I will play with them in time. http://www.pure-mac.com/para.html

6. **Anti-PopUp: Buy $: Line 15   Install Time: Line 34**

For older WinTel operating systems and browsers, you will probably want a popup blocker. An upgrade to Firefox solves a lot of problems. Of course, you can buy software for $10-$30. Mac with Firefox? Nothing to do. And/Or… use the Google toolbar, which is very effective at stopping pop-ups.

7. **Not IE Browser: Buy $: Line 16   Install Time: Line 35**

According to reports I have read, the latest Beta of IE 7 won't allow a user to set Google as the home page. Doesn't really matter, since no one in their right mind should be using IE, except for those rare web sites that are Microsoft-centric coded. (Write them hate mail.)
IE is under constant attack and the integrated WinTel approach is ripe for problems you don't need. Firefox has its share of patches and upgrades, but the "I Hate Windows" hackers way outnumber the "Researchers" who find holes in Firefox.

Some Mac users swear by Safari, but I chose to use Firefox – because I like it. Security wise: anything but IE.

8. **Email Client: Buy $: Line 17   Install Time: Line 36**

High profile virus and worm attacks have been particularly effective against Microsoft Outlook. I have never (read: never) used Outlook, other than to migrate friends off of it. In my pre-Mac days, I used Eudora, which in something like nine years only had only a couple of security patches. On the Mac, I use Mail.

As long as you don't use Outlook, you'll be OK. Figure Free to $40 and depending upon the size and type of your current e-mail client, ½ hour to ½ day.

9. **Backup:**   **Buy $: Line 18**   **Install Time: Line 37**

Gotta do it for both WinTel and Mac.

The kind I like is "Incremental" which means that only those files that are new or have been changed are backed up. So, once the initial back up is done (that can take hours), subsequent backups a re much quicker.

Our solution? Backup across our wireless network to an old Pentium box with a few big hard drives. Old hardware is perfect for this application as CPU power is not critical. If you don't have an extra box, put the backup hard drive in the tower, but that is not ideal and doesn't work for laptops. A USB hard drive is also viable (I carry one on the road) but more expensive.

WinTel Software: I like http://secondcopy.com/ but that's just my choice. For more options, http://pcworld.pricegrabber.com/search_attrib.php/page_id=194

Mac: http://www.pure-mac.com/backup.html.

10. **Anti SpyWare**   **Buy $: Line 19**   **Install Time: Line 38**

Spyware is soooo popular on WinTels that you just HAVE to do something about it. For Macs, still rumor if any are in the 'wild'. Use this site as a starting point. If you don't you WILL lose. http://anti-spyware-review.toptenreviews.com/?ttreng=1&ttrkey=spyware+removers

Mac? http://macscan.securemac.com/ seems to be the only product aimed at Mac spyware because it is such a minor concern, today. Tomorrow? Who knows. Stay tuned and never assume security problems won't come your way!

11. **Tweaki:**   **Buy $: Line 20**   **Install Time: Line 39**

Microsoft provides a huge range of security options. In Win-2K and XP there are countless security choices, many of which are deep into layers of Windows. Outlook and IE have a host of security choices as does the MS Office suite.

You can get Carpal Tunnel by having to migrate through all of these options. But, for $20, I adore Tweaki from www.jermar.com. This essential utility puts all of the Microsoft security options on one tabbed screen. Worth every penny of it for the WinTel world and you will save countless hours of head-scratching frustration. Or not.

You can spend hours tweaking the security of your WinTel box. If you're pretty technically fluent, a half hour will do it.

12. **Startup Manager:**   **Buy $: Line 21**   **Install Time: Line 40**

When you get a WinTel machine from the vendor, there is a ton of preinstalled software. That's good. But most software vendors believe that their software is so important to you, that they also install a permanent process that eats up memory, hurts performance and can increase system instability.

In reality, a WinTel machine can survive quite well, with more reliability, with less than 30 processes running. That is in distinction to the often more than 50 startup processes that come shipped with a new WinTel box or the 70-80+ I see on many machines.

Spyware is often found in the various startup locations on WinTel boxes. Without user intervention or startup management, as users add software, process hogging becomes a major security problem.

I have used the $20 Startup CoP!lot http://www.windows-startup-cop.com/ and the free Startup Manager. Any of these utilities will take some time to install, configure and monitor. For newbies, you should plan on a couple of hours. Some other cool resources:

> http://www.mlin.net/StartupMonitor.shtml
> http://www.pcworld.com/downloads/file_description/0,fid,5018,00.asp
> https://netfiles.uiuc.edu/ehowes/www/soft21a.htm

13. **O/S Upgrades: Buy $: Line 22   Install Time: Line 41**
I have been using Win2K and then XP flavors on several machines. When I have to reinstall Windows, for any reason, I have my original install disk, and begin there. I usually give that .5 - .75 hours to get done – if it takes the first time. Sometimes, it doesn't. No one knows why and I won't pretend to.

Then I have to upgrade the O/S to the latest and greatest. That often means downloading SP1, then SP2…. SPn. I have spent as much as 2+ hours just making my O/S current because it has crashed or someone in New Deli said it was time to reinstall Windows or because… well, just because nothing else worked.

As for my Macs. I upgraded from OS X 10.4.0 to 10.4.2 in, I guess it was 10 minutes and there was no pain.

The thing that saved all of the time was that the natural, out of the box Mac O/S configuration works. I did not need to spend an additional couple of hours to tweak it into benign behavior. For me, this is a Godsend. I can actually use my computer instead of trying toe endlessly fine tune it into semi-sorta-working.

14. **Application Upgrades: Buy $: Line 23   Install Time: Line 42**
I have spent hours upgrading MS Office and I am sick of it. (Aha! Mad as Hell.)

OK. I had Office 97 and bought a set of new install Office 2K upgrade disks from Microsoft. Fair enough. But I had to buy a separate PowerPoint disk. OK. Whatever. Along comes Office XP so I bought the upgrade at a lot less $. But, when I had to rebuild a crashed system, I had to first install Office 2K and the original PowerPoint and then install the XP and the XP PowerPoint. Time consuming pain in the tuccous. Can be hours of time much better spent taking a ski lesson with the money I've saved on my Mac.

15. **Options I-IV:**   **Buy $: Lines 24-27   Install Time: Lines 43-46**

I could harp on and on about how many other cool security tools there are to make your WinTel playground more reliable and thus more secure, but that would really be unfair since most Ma&Pa users won't go that far. Registry cleaners are pretty popular as are entire suites of performance enhancing cyber-steroids that claim to make your WinTel stronger and less like an AIDS patient.

If you want add additional security and performance options for your Total Cost of Ownership analysis, cool. I am just trying to be fair. For more security and utilities take a look at www.pureperformance.com and www.pcmedixwebs.com/enditall.htm.

Let's Add It Up and Create the TCO

So we have some initial hardware and software costs. You fill in the blanks so you can come up with your own Initial Costs in your TCO Analysis. It is possible, of course, to get most of the security and utility software you need for free. Support might not be as good, but it won't be $3 per minute either.

You can rely on newsgroups, forums, and geek friends to save money, too. But, someone has to do it if you want a reasonably secure environment and headache-freer use. Time no matter how you look at it.

Now, we have to start adding up the soft costs of WinTel versus Mac. If you like the geeking, and don't mind the pains and trials and tribulations, and PCs are a hobby for de-stressing, then you probably won't care about this.

But, if you are Ma&Pa who want the basics to just work, plunge ahead so you can make your own, better informed decision of which way to go.

Line 49: Total Initial Cost
All we are doing here is adding up the hardware cost (use your own numbers, of course) and some average retail prices of major brand software as described above. Feel free to tweak these numbers as you wish.

But, remember this. If you are trying to save $100 or $200 by cutting corners, maybe you should wait so you can do it right, either on a WinTel or with a Mac.

Line 50: Total Setup Time
How long does it take to get a new computer, right out of the box, working reliably? All we do here is sum up the minimum and maximum estimated times it takes to get a WinTel or Mac, straight out of the box, working reasonably securely. Over in columns I, J, K, L, all I did was multiply the time is columns D, E, F, G by your rate per hour in C3.

Line 52: Minimum WinTel Initial Cost
Add B49 + I50 for a minimal initial cost estimate. Hardware/Software Cost + Value of Time.

Line 53: Maximum WinTel Initial Cost
Add B49 + J50 for a maximum initial cost estimate. Hardware/Software Cost + Value of Time.

Line 55: Minimum Mac Initial Cost
Add C49 + K50 for a minimum initial cost estimate. Hardware/Software Cost + Value of Time.

Line 56: Maximum Mac Initial Cost
Add C49 + L50 for a maximum initial cost estimate. Hardware/Software Cost + Value of Time.

Subscriptions/Updates Cost Per Year

An initial purchase is just that; the initial cost of the hardware and software. To do things right, and legally, you do need to keep your machines alive and well. A car needs gas, a computer needs Internet access. A car needs a regular tune-up? So does a computer. The vendors would like you to believe that the $449 or $799 computer is all you need to do. T'ain't so, baby!

Lines 62 – 78: I added the annual subscription fees for anti-virus, spyware detection and an extra spam blocker. You may choose to do something else, and that's fine.

If you do manage to use all free software, it is still smart to upgrade the security and reliability utilities on a periodic basis. So, put in some time for that, if you value your time. Again, I tried to be reasonable, and used real numbers, even somewhat softened.

Lines 84-88 show the totals of annual subscription costs (if any) and the range of value of time you might need to accomplish the various tasks. Note that on the PC, the extreme range is due to two fundamental factors:

a. Some people may choose to (at the detriment of their security) do as little as possible.
b. Some folks may just take a lot more time to do the various items suggested.

In my case, it's somewhere in the middle. I do a lot of security things, some for free (thanks to the vendors who send me free software), and I check them often.

I will say, on the Mac, I have done almost nothing… which has saved me headaches, pains, and tons of (my valuable) time.

Reliability Costs

This is what got me Mad as Hell in the first place.

I was perfectly content running A/V, checking firewalls, defragging, managing start-ups… maybe not happy about it, but it was – due to my arrogance – all that I knew. It was my entire world. So, as I suggested in a recent *Network World* column, I was subject to the Stockholm-Redmond Syndrome. The technology abuses you over and over, than promises not to. You have hope. And then it smacks you right back down again. More promises. It's an endless cycle of abuse – that I was able to break.

Point being: If the WinTel platforms had been more stable, I would have kept patching and upgrading like the rest of the world on the cyber-carousel of security. But the problems across vendors *ad nauseum* pushed me over the edge.

Thus, I felt it was entirely justified to include Reliability as a measure of TCO, especially for businesses.

Maybe you don't care about reliability. Ferrari owners go really fast when their cars actually work. F-16s are great, but need a lot of maintenance. But maybe you do care, and maybe you value your time. Maybe you value your time not in dollars but in headache factors. I don't know to measure that exactly, so I decided to stick to time and $ as the metric of reliability – or lack thereof.

So here's what I did:

Line 92: WinTel machines, at least in my experience and the experience of most people I know, need to be rebooted. Why? Because they crash. Because resources get eaten up and there is no sane way to fix them other than to start over. Memory gets confused. How many reboots per month do you perform? Just enter that number. I picked three, but it was really a lot more.
Line 93: A reboot can be a simple affair, timewise, or it can create a set of conditions that worry Ma&Pa and are a pain to me. Scanning error; Safe boot. Arrrggghh. Nonetheless, I am using .1/Hr, or 6 minutes as the average reboot time. Seems fair, but I know that is a really low average.

Line 94: How much repair time per month? Do you have to get on the phone with the manufacturer about hardware or software problems. I am using 1 hr per month, or 12 hours per year, as my figure, but it was a whole lot more than that. This does not even include the cost the vendor or Microsoft charge for the privilege of having them fix your box. In all fairness, tho, supporting Ma&Pa can be expensive. If the boxes were KISS, tho, it would be a whole lot cheaper for everyone.

Line 95: System maintenance on computers is essential. Defragging. File cleanup. I am just putting in one hour per month as a conservative estimate.

Line 96: Other downtime that you believe is caused by the computer or its Operating System. I am including 6 minutes per month.

Line 98: Just copies your time value per hour from C3.

Line 100: All I did here was add up Lines 92-96, multiplied by your hourly rate and times 12 to figure an annual cost.

The Finale: Total Cost of Ownership

This is what everyone asked for, so, in whatever state it is, here it is. (English as my first language?) How much does a computer really cost? Forget printer supplies and extra RAM and lovely USB devices and tons of productivity software. I really wanted and answer for me and Ma&Pa, and I guess I had to get Mad as Hell to discover the question, so I could figure out some way to get an answer.

Assumptions:

       a. You use legal software and pay for it.
       b. The useful life of a computer is three years.
       c. You don't spend any money on outside service or geeks. You do it all yourself.
       d. You don't pay $35 per incident or $2-3 per minute for telephone help.

Line 104:
If your WinTel machine is pretty clean, stays pretty clean, and it doesn't really go haywire, here you go. Pretty good.

Line 105:
If you have problems and license more software and such… heck, you entered the data yourself, this is what you get. Scary, isn't it? Now change around Cell C3, your value per hour in $ and see what happens. Play with it!

Lines 106 & 107:
Same thing for Macs but the numbers really surprised me. I did not expect this much of a difference, but when you add up the little bits over time, it really does make a difference. The rest is up to you.

For Corporations and Big Places
You can use the same or a similar spreadsheet for your own analysis. Your cost basis is going to be very different though. Volume hardware purchases and software licensing appear to save a great deal of money. But, once you have the license, for anti-virus, or any other software, you have to architect it into your enterprise, distribute it to the desktop, train staff and administration, and keep it updated.

Some of the items you should consider in performing an Enterprise TCO include:

1. Evaluation time and cost. (Meetings!)
   a. Primary
   b. Technical
   c. Business

2. Architecting Deployment time and cost
   a. Security
   b. Business Units
   c. Language
   d. Backup

3. Licensing costs
   a. Per desktop, laptop, client.
   b. Per server
   c. Maintenance
   d. Upgrades
   e. Staff time

4. Consulting Cost
   a. Installation
   b. Admin Training
   c. User training and awareness

5. Help Desk
   a. Technical
   b. User Help Costs per time unit
   c. Reporting

6. User Downtime
   a. Per crash
   b. Per help call
   c. Per rebuild
   d. Per year

7. Whatever else I didn't think of.
   a. It's never as easy as they say.
   b. It's never as cheap as they say.
   c. It'll never work as promised.
   d. Security is not perfect, no matter what they say.

I will get back to you if anything interesting comes up. Month Rant Over.

Use it as you will.

I want to thank the unknown million who have followed my experiment. Thanks.

Last.

Do right by yourself. Make an informed choice.

Winn Schwartau, a/k/a Mad as Hell now Pleased as Punch.
http://www.TrustedLearning.Com
http://www.TheSecurityAwarenessCompany.Com
http://www.Infowar.Com

From James, our CTO [Editor: The Security Awareness Company Chief Technology Officer]

Don't forget that programs like Virtual PC exist so you can run your Windows applications on your Mac. While these are best left to apps that aren't intensive like games, they get the job done. I use them for running other operating systems for testing on a virtual network with various different OS's.

Speaking of intensive applications, another reason to pick WinTel over the Mac; gaming. Spawn campers around the world are all sitting on the WinTel platform.

My estimate using Winn's TCO numbers was a clear 3:1 in favor of the Mac. The incremental setups at the top of the document are the killers. All the little things you need to do to a Windows machine, firewalls, virus, updates (which don't always work - and a failed SP [Editor: Service Pack] install can send you back to formatting the disk again) and let's not forget the search for drivers. It can take all day - a long and a times frustrating day.

Even when I had the last Dell I got (emphasis on last) shipped to me took about four hours to get it online. Even out of the box you have to go through and add/update virus scanners, firewalls - heck even the registry. When I got my G5, it was up, running and updated within an hour.

The honeymoon is over between me and my Mac tho... it stops being a happy place when you don't have enough RAM. Maybe we'll go on a second honeymoon if I can scrape up some more RAM (however much it can hold), but until then, I'll be cursing that f***ing color wheel.
End James Rant

Books

Canon EOS Digital Rebel: Digital Field Guide reviewed by Robert Pritchett

Author: Charlotte K. Lowrie;
http://www.wordsandphotos.org
http://www.wiley.com/compbooks
Product Site:
http://www.wiley.com/WileyCDA/WileyTitle/productCd-0764588133.html
Released: June 2005
Pages: 253
$20 USD $26 CND £13 GBP €17 Euro
ISBN: 0764588133
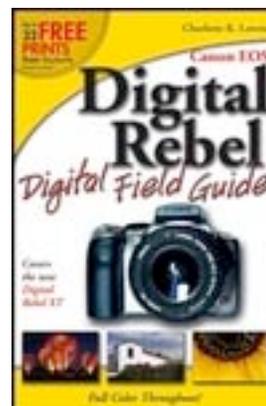
Strengths: Focuses on Digital Photography with the Canon EOS Digital Rebel.

Weaknesses: None found.

Canon EOS Digital Rebel: Digital Field Guide by Charlotte K. Lowrie looks like the book that should be in the box along with the product.

Wiley has begun a series if Digital Field Guides with this book. If you are sitting on the fence and haven't been reading the reviews at http://www.dpreview.com you can always pick up books from this series. This one covers the Digital Rebel XT from Canon.

Charlotte Lowrie does a great job as an instructor and she shows not just the controls, but how to use them. Her book will actually sell Canon cameras. Probably what I learned the most is that the key to any camera is the eye of the unit or lense in chapter 5.

The book does much more however in three parts and seven chapters; exploring and setting up the camera, basics, light and the art and science of lenses, techniques, downloading and editing. Part Three is the Appendix and glossary. Part Two is the training portion of the book.

This is a "How-to" book that goes way beyond just the Canon EOS Digital Rebel and is a joy to read because it is in full color and is well organized.

Game Coding: Complete, 2nd Edition reviewed by Robert Pritchett

Author: Mike McSaffry;
http://www.oreillynet.com/cs/catalog/view/au/1702
http://www.mcshaffry.com/GameCode/
http://www.paraglyphpress.com
Booksite:
http://www.oreilly.com/catalog/1932111913/index.html
$45 USD, $70 CND, £ GBP, € EU
Published: November 2004
Pages: 928
ISBN: 1932111913
Requirements: Windows environment.

Strengths: Discusses programming issues related to the Windows environment.

Weaknesses: No attempt to even think about the Mac environment. All source code is .exe only.

Game Coding: Complete, 2nd Edition isn't just a coding book by Mike McShaffry, it also has a human side referring to war stories in the industry as Mike works his ways through 928 pages of this book and works on various projects.

The book is divided into 4 parts, fundamentals, getting the game running, core technologies, and game production and development. Much of what is presented can be translated to other kinds of software development as well, especially the discussions on testing.

For a thick, heavy book, there are 22 chapters on what is good and bad about game programming, architecture and logic, design practices, initialization, world design and cache prediction, input devices, interface programming, sprites and fonts, events and scripting, audio and 3D math, graphics, scenes, collisions and physics, multiplayer programming, considerations regarding programming in Windows, debugging, working through Teapot Wars!, scheduling, testing referred to earlier and dealing with trouble.

With this book the "Macs are not for gaming" mentality is in full force. And working in operating System Hell can be summed up in this comment; " Christmas is only merry if your game is done".

Gaming Hacks: 100 Industrial-Strength Tips & Tools reviewed by Robert Pritchett

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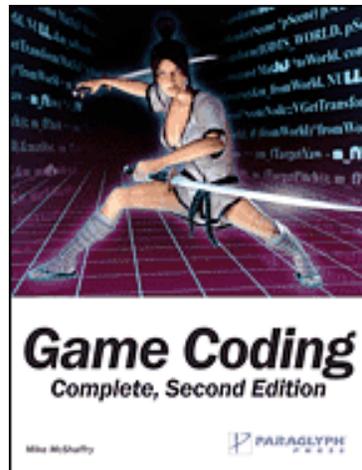
Author: Simon Carless and 18 contributors;
http://www.oreillynet.com/cs/catalog/view/au/1739
http://www.gamasutra.com/
Booksite: http://www.oreilly.com/catalog/gaminghks
$25 USD, $37 CND, £17.50 GBP, €23 EU
Published: October 2004
Pages: 462
ISBN: 0596007140
Requirements: A desire to play computer games.

Strengths: Includes lots of Mac-hacks.

Weaknesses: None found.
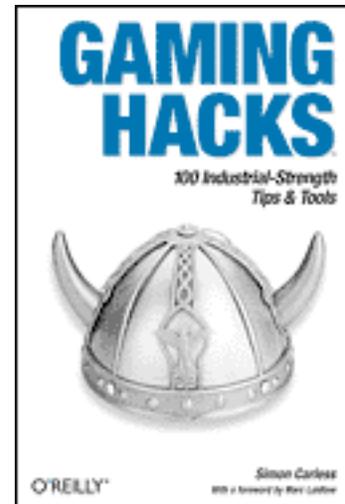
Gaming Hacks: 100 Industrial-Strength Tips & Tools by Simon Carless and 18 other contributors looks like some screen-scraping over on the Gamasutra site and then some. There are a few hacks that are Mac-centric and also "rescumming" to get LucasArts games to play nicely on the Mac. MacMAME is in there too. And there is some print dedicated to hacking a Mac display with the ADC to DVI adapters.

Yes, a lot of the book is non-Mac. After all, games started on the Mac, then it matured. Now folks keep their PCs, the machines that started out as business-only machines, just for their gaming capabilities. Do you see the irony of this situation?

Anyhow, the book is full of gaming hints, tips and tricks in 8 chapters on playing classics playing on portables, working MMORG (Massive Multiplayer Online Role Playing Games) lingo and FPS (first-person shooter), playing hardware, Console and Arcade equipment, working with Machinima (real-time movies created using game engines), and playing your own games and the miscellaneous chapter even shows how to play Japanese games without speaking Japanese.

If you are into Modding, you've come to the right place.

Heck, there is even discussion about being careful around some games due to nudity. This book was written way before game-sex scandals hit the airwaves.

Home Networking, the Missing Manual reviewed by Ted Bade

Pogue Press/O'Reilly
orders@oreilly.com
http://www.missingmanual.com/
Booksite: http://www.oreilly.com/catalog/homenettmm/
Released: July 2005
$25 USD $34.95 CA, £17.50 UK €23 Euro
ISBN: 059600558X

Strengths: Full of detail, step by step procedures along with enough information to education the reader rather then just show how to do the steps.

Weaknesses: Doesn't cover any VPN options. Doesn't discuss remote control of Macintosh computers (but does for Windows machines).
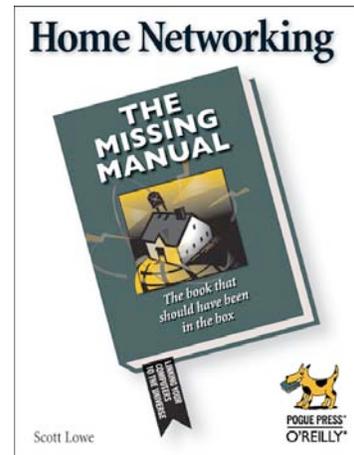
Connecting computers together over a network can be a daunting task, especially for people lacking knowledge and experience. Home Networking: The Missing Manual describes the steps necessary to connect up both wired and wireless networks, as well as some things that can be done once the network is set up. This book is written in a friendly manner, as if a friend were patiently explaining the process. This is great, since it makes reading about a topic that seem formidable, a lot easier to face. Since this book provides how-to for many operating systems, people with older ones such as Mac OS 9 or earlier version of Windows, are not left out.

Scott Lowe makes dealing with networks easier to understand by breaking the process into small steps, then describing each step along with information describing the why and what of the step. This way the reader can gain a little knowledge as they learn to connect their network. This knowledge can go a long way in helping to understand networking in general.

Since you can network any computer with the correct hardware, this book covers both Mac OS X, Mac OS 9, as well as several varieties of Windows, and provides information for adding Macs to a Windows network and a Windows machine to a Mac Network. For each case, the author provides an easy to understand, step-by-step guide, covering both the network hardware setup as well as configuring the variety of Operating systems to access the network.

The process of setting up a router to let various computers share a high-speed cable or DSL connection is also covered. While the author concentrates on one specific manufacturer's hardware (Linksys), his description can be used for almost any piece of hardware. Where appropriate, he points out how other manufacturers, might accomplish a specific task, and provides enough information to give one enough knowledge to attempt to figure out the odd piece of hardware on their own.

Rather then confusing the reader by including both wired and wireless routers in one chapter, the author provides a different chapter for each. There is enough information provided in the wireless section to give a person a good basic understanding of the varieties of wireless protocols and equipment.

Throughout the book, the set up is repeated for each operating system covered. This means you don't have to read everything, only those parts pertaining to what you are doing. However, if you need to add something new in the future, the book remains a great reference. While the author begins each description using standard setups or installers, he also discusses several non-typical cases. For instance, setting a router up to work with a static rather then the more standard dynamic IP or using a browser to set up the router rather then its own (often Windows only) provided application.

After describing how to set up a network and router, the author then dips into other things that could be added to a network. This section is pretty cool, since it describes a wide variety of items. For instance, he covers adding a Tivo DVR, a network back up drive, connecting a gaming console, and setting up network printer sharing. In my opinion, these are items that a commonly used in the home network. As before. The setup process is covered in detail for each operating system.

Accessing one's computer remotely is also covered in detail. Again including information about how to use what is included in the operating system as well as some software solutions. I was surprised not to see mention of certain Mac OS remote access software solutions and no mention of VPN connections. Still enough information is provided to get a person started.

The book ends with a description of using Apple's Keychain and multi-user applications. Useful information, it almost seemed out of place in the book.

If you are looking for an easy to understand reference to help set up you own network (wired, wireless, or a combo of these), I would highly recommend this book. It is written in a language that is easy to read and understand, yet gives enough information to help one understand what is going on.

IP Telephony Unveiled reviewed by Robert Pritchett

Author: Kevin Brown
 http://www.norstan.com/
Cisco Systems
http://www.ciscopress.com
Booksite: http://www.ciscopress.com/title/1587200759
$25 USD, $36 CND, £19.50 GBP, €21 EU
Published: January, 13, 2004
Pages: 192
ISBN: 1587200759
Requirements: An interest in IP Telephony.

Strengths: How IP telephony works, saves money and demonstrates how it is much more than Voice over IP.

Weaknesses: Just be aware that it is a media outlet and marketing tool of Cisco.
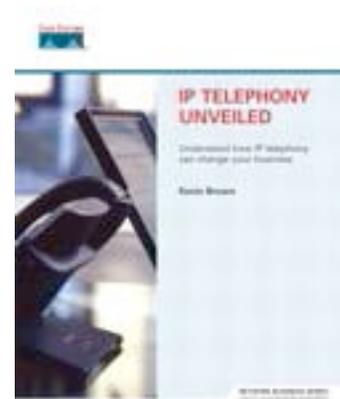
IP Telephony Unveiled by Kevin Brown is intended both a tutorial and strategy book on all things surrounding IP telephony. It does a pretty good job making a distinction between IP Telephony and Voice over IP (VoIP), what it is and what it is not.

What this book unveils is how IP Telephony (IPT) can be a cost savings activity instead of telephony being a monthly sinkhole. It goes way beyond what a Private Branch Exchange (PBX) can do and does it well.

When I had to show how much IP Telephony would cost for a widespread organization I was part of and loosely tied together by the way, my presentation cost around $100K and the proposal was in the millions of dollars as I pulled together information form each local office , compiled it into one great whole and showed the widespread diversity that each office had regarding telephony solutions. It was truly mind-boggling. If I had had this book then, I may well have been able to persuade the powers that were to accept it and move forward into an efficient converged infrastructure. As it was, I walked away and nothing came of it as far as I could tell.

Oh how I cold have used this book back then!

Here are 8 chapters discussing what a PBX is, what IPT can do, c0onvergence and obstacles, bringing in new capabilities with the technology, environments that can use IPT, the difference between cheap phones and intelligent clients not the folks but the equipment), business cases, ways to look at Return on Investment (ROI), understanding the impact of voice traffic on a digital network, the various networking challenges, planning pilot environments, bandwidth issues, a 7-step process to a successful IP Telephony experience, and future activities and applications.

Kevin Brown does a great job exposing the myths and showing off the unvarnished truths of competitive benefits for business.

Now granted, this is a book in a press by a vested interest, Cisco. They push the book because they have been pushing IP Telephony for years. Cisco took 3 years to switch over from their Lucent Definity system to the Cisco AVVID IP Telephony solution. I watched them progress and Kevin Brown apparently cataloged some of that as he was VP of Selsius Systems, that subsequently became the IP Telephony Division of Cisco, so take it for what it's worth.

I could have written this book, but he did instead. I'm glad he did. He wrote more in less pages than I could have and he comes across more convincingly than I could have.

If you have any interest in IP Telephony or the strategic thinking that goes into a migration project from one communications technology to another, get this book.

Killer Game Programming in Java reviewed by Robert Pritchett

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computer books • conferences • online publishing

Author: Andrew Davison;
http://www.oreillynet.com/cs/catalog/view/au/2098
http://fivedots.coe.psu.ac.th/~ad/jg/
Booksite: http://www.oreilly.com/catalog/killergame/index.html
$45 USD, $63 CND, £32 GBP, €41 EU
Published: May 2005
Pages: 936
ISBN: 0596007302
Requirements: Java knowledge and Java installed.

Strengths: Shows both 2D and 3D programming instructions for Java.

Weaknesses: None found.

Killer Game Programming in Java by Andrew Davison is a great way to learn Java 2D and 3D APIs. There are for parts to the book on 2D, 3D network programming spread across 32 chapters and also two Appendices on installation.

Much of the book can be found at http://fivedots.coe.psu.ac.th/~ad/jg/ along with the source code. To get the code to work, go to http://fivedots.coe.psu.ac.th/~ad/jg/code/index.html to learn what needs to be done (basically, both Java 2D and Java 3D needs to both be installed). And yes, this does work on a Mac.

Look at the alternative gaming environment to C/C++. If you ever played Puzzle Pirates, Chrome, Star Wars Galaxies, Runescape, Alien Flux, Kingdom of Wars, Law and Order II, Roboforge, Tom Clancy's Politika, you played a game based on Java.

The book is not full of page after page of code, rather, it is full of nearly Lego-like building blocks showing what has been and can be done with sprites, first-person shooting, sound, fractals and networked games modeling and a Network Virtual Environment (NVE).

Put Java to use and make you gaming activities rise above the operating systems and go cross-platform!

Authors: Nicholas Petreley;
http://www.varlinux.org
Jono Bacon;
http://www.jonobacon.org
And 18 Contributors
Booksite:
http://www.oreilly.com/catalog/linuxdeskhks/index.html
$25 USD, $35 CND, £17.50 GBP, €21 EU
Published: March 2005
Pages: 342
ISBN: 0596009119
Requirements: Linux installed.
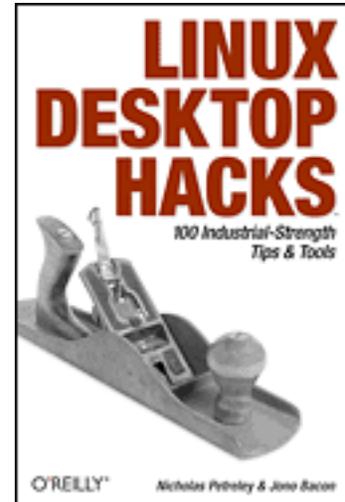
Strengths: Latest tweaks for Linux.

Weaknesses: None found.

Linux Desktop Hacks: Tips & Tools for Customizing and Optimizing Your OS by Nicholas Petreley, Jono Bacon and 18 contributors is all Linux.

If you use or want to use Linux, find out a few things you can do to tweak and optimize it to work better with X, KDS, Gnome, OpenOffice.org, Firefox, Ximian Evolution Email and other apps for the Linux Desktop.

If you think Linux is for the Intel chipset only, think again. There are hacks in here for the Mac too. Learn how to use yaboot for the Mac versions of Linux, an extraction font program for Mac OS X named Fondu, configuring a Mac OS X VNC (Virtual Network Computer) with OSXvnc and even how to use an iPod with Linux.

The book is divided up into 11 chapters covering such things as booting, the console, login managers, relating to X, the KDE and GNOME desktops, terminal, desktop programs, admin and automation, the kernel and hardware including USB devices and gaming.

The Linux Enterprise Cluster: Build a Highly Available Cluster with Commodity Hardware and Free Software reviewed by Robert Pritchett

Author: Karl Kopper;
http://www.oreillynet.com/cs/catalog/view/au/1410
No Starch Press
555 De Haro St., Suite 250
San Francisco, CA 94107
1- 800-420-7240 or 1-415-863-9900
Fax: 415-863-9950
info@nostarch.com
http://www.nostarch.com/
Booksite:
http://www.nostarch.com/frameset.php?startat=cluster
http://www.oreilly.com/catalog/1593270364/index.html
$50 USD, $68 CND, £34 Net UK, €43 Euro with CD.
Published: May 2005
Pages: 464
ISBN: 1593270364
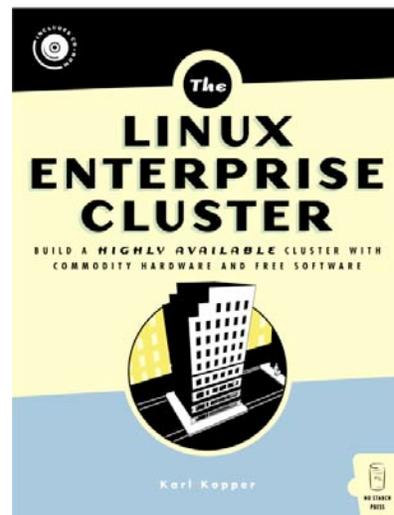
Strengths: Brings Linux boxes together to be the computer.

Weaknesses: Some typos.

The Linux Enterprise Cluster: Build a Highly Available Cluster with Commodity Hardware and Free Software by Karl Kopper is a "how-to" kind of book intended to work with wide clustering (response time) as Linux Virtual Servers (IPVS/LVS) instead of deep clustering (CPU throughput).

This book has a CD included that contains all the Linux 2.4 and 2.6 kernels and LVS kernel modules, ldirectcord, Mon apps, Ganglia, Open SSH, rsynch, SystemImager, Heartbeat, all figures and illustrations in the book.

If you don't know anything about Clustering, you will by the time you finish this book. Okay, almost everything. Missing in action is, understandably, any reference to Mac Clustering.

If you have a bunch of derelict PC boxes floating around, you can give them new life by tying them together and making them into a server using the Linux Virtual Server load-balancing software. Battelle Northwest just north of my location has one or two.

This book shows how to make a cluster that is Enterprise-grade. Karl Kopper does so by showing how to use the software listed above. He also has a part of the book dedicated to troubleshooting and dedicates print to not just how, but why.

As with any book that has code listed, there are a few typos. Those will eventually be caught in the errata page over on O'Reilly.

There are20 chapters in 4 parts on cluster resources such as services, packets and compiling the kernel, high availability with synchronization, cloning using Heartbeat, Stonith and ipfail, cluster theory and practicing with the Linux Virtual Server NAT and DR clusters, load balancer and the Network File System, maintenance and monitoring with Simple management Protocol and Mon, Ganglia and finally, a few case studies and the Linux Cluster environment. There are also 6 Appendices on downloading with a text terminal from the Internet, troubleshooting tcpdump, adding network interface cards, dependency failure strategies, potential cluster file systems and lock arbitration methods and LVS clusters and Apache Configuration.

Is any of this knowledge usable on a Mac? Sure, if you are running a Linux OS on the Mac, but more importantly, by reading this book, you will be prepared to think about Mac Clustering and still be able to speak to the Linux side of Unix as well.

Linux Made Easy: The Official Guide to Xandros 3 for Everyday Users reviewed by Robert Pritchett

Author: Rickford Grant
http://www.edgy-penguins.org/LME
No Starch Press
555 De Haro St., Suite 250
San Francisco, CA 94107
1- 800-420-7240 or 1-415-863-9900
Fax: 415-863-9950
info@nostarch.com
http://www.nostarch.com/
Booksite:
http://www.oreilly.com/catalog/1593270577/index.html
$35 USD, $48 CND, £24 Net UK, €30 Euro with CD.
Published: August 2005
Pages: 496
ISBN: 1593270577
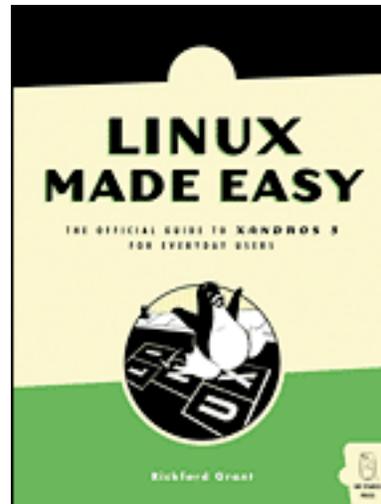
Strengths: Gets Linux wannabees up-and-running quickly – if they have a PC.

Weaknesses: Xandros does not have a Mac version.

Linux Made Easy: The Official Guide to Xandros 3 for Everyday Users by Rickford Grant walks through the Xandros installation for Home use.

The included CD has the Xandros Open Circulation Edition, OpenOffice.org, Firefox, Thunderbird, Real Player and Skype.

RickFord Grant does a great job in a rather non-geeky way, on show9ing how Linux is set up to use the Internet, play CDs, operate scanners, download software, synch PDAs, print and make Skype calls.

If you use a Mac, you can skip this book, unless you want to feel the Linux pain for installing and configuring Linux on a PC.

There are 5 parts in 20 chapters on beginning Linux, bothering with single or dual-boot modes, KDE setup, connecting with or without wireless, XFMing with the Xandros File Manager, using Input/output hardware like floppies, CDs and DVD and USB devices, adding users, and fonts, customizing the windows, networking, printing, scanning, connecting to digital cameras and PDAs, surfing the web with Firefox and using Email with Thunderbird, instant messaging with kopete, playing audio with RipperX, XMMS and Real Player, watching video with TV Time, getting artsy with Paint and GIMP, using OpenOffice.org, and installing Windows apps, gaming with Njam and other games, and "kiddy" software, and finally, getting into the Command Console with 3 projects playing encrypted DVDs, Briscola and Java apps. There is even a Proxy Setting section and a Glossary.

Linux in a Nutshell: A Desktop Quick Reference 5th Edition reviewed by Robert Pritchett

Authors: Ellen Siever, Aaron Weber, Stephen Figgins, Robert Love,
Arnold Robbins.
Booksite: http://www.oreilly.com/catalog/linuxnut5/index.html
$45 USD, $63 CND, £32 GBP, €41 EU
Published: July 2005
Pages: 942
ISBN: 0596009305
Requirements: Linux.
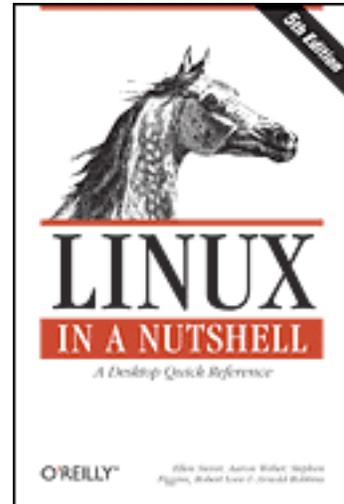
Strengths: Everything you wanted to know about Linux but were afraid to ask.

Weaknesses: None found.

Linux in a Nutshell: A Desktop Quick Reference 5th Edition by the authors listed above is a collection of every Linux terminal command known to Man (if you don't get the pun, stop reading).

Since the book is in the 5th Edition, you get an idea that a lot has transpired in the Linux camp since Edition 1, right? Actually, some chapters were totally eliminated (4 of them) on desktop and windows management and more print was dedicated to network and admin commands instead. A chapter on Subversion was added and more information has been provided for front-ending RPM and Debian package formats.

Examples pare provided for using listed utilities and using Linux-based tools. For a fat book, there are only 14 chapters covering distribution and support, system and network admin overviews, Linux command boot methods (by far the attest chapter), package management, Bash and Korn shells, pattern matching, Emacs, vi, ex, vim and sed editors, gawk programming, source code management, a whole chapter dedicated to the Concurrent Versions System (CVS), and finally, the Subversion Version Control System.

If you are serious about exploring Linux, come here.

Mastering Mac OS X v10.4 Tiger 4th Edition reviewed by Robert Pritchett
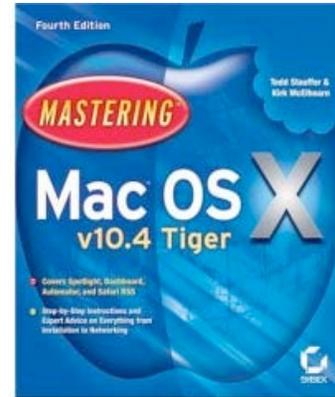
Authors: Todd Stauffer;
todd@masteringmacosx.com
Kirk McElhearn
http://www.mcelhearn.com
http://www.masteringmacosx.com
Sybex, Inc.
1151 Marina Village Parkway
Alameda, CA 94501
http://www.sybex.com
Booksite: http://www.sybex.com/sybexbooks.nsf/booklist/4283
Published: June 2005
Pages: 912
$40 USD, $56 CND, £28 GBP, €34 Euro
ISBN: 0782144012
Requirements: Mac OS X 10.4 Tiger

Strengths: Covers all the bases now.

Weaknesses: None found.

Mastering Mac OS X v10.4 Tiger 4th Edition by Todd Stauffer & Kirk McElhearn covers all the bases nicely and adds areas that were missing in the earlier edition such as AppleScript Studio.

Kirk used to be a member of the *macCompanion* staff and decided to devote his time to writing books. Here is the latest from him as he partners once again with Todd Stauffer on this update to a very well written book.

"Oh no, another Mac OS X version-based book!" Okay, note taken, however, for the uninitiated who want to learn more and dig a little deeper, this book goes from novice to intermediate and even some advanced without getting too geeky about it.

The authors seem to have anticipated just about every question imaginable related to Mac OS X Tiger and then answered those with excellent instructions and walk-throughs. And they did it in seven parts with 29 chapters and three Appendices.

My interest honed in on security issues (encryption, network and Email security), and the latest coverage of Spotlight, Automator Dashboard and Safari RSS.

The authors also have a whole chapter on Mac OS X (20) and other platforms and combined Automator with AppleScript (21).

Find out what you are missing by not upgrading to Mac OS X Tiger or if you have installed Tiger, find out all the nuances and learn from the experts who are "been there, done thats".

Authors: Bryan Cunningham, Ted Dykstra, Ed Fuller, Mathew Hoagberg, Chuck Little, Greg Miles, Travis Schack and Russ Rogers.
http://www.syngress.com
Booksite: http://www.syngress.com/catalog/?pid=3370
$60 USD, $84 CND, £35 GBP, €51 EU
Published: August 2005
Pages: 450
ISBN: 1597490350
Requirements: A desire to know the technicaleeze behind doing network security evaluations.

Strengths: Fine-tunes processes behind network security in heterogeneous environments.

Weaknesses: Duplicate information in places. Not nearly enough about evaluation tools for non-Windows environments. A few typos.

Network Security Evaluation: Using the NSA IEM by the e eight authors listed above is all about the bureaucratic side of doing network security evaluations a la US National Security Agency guidelines.

Missing in action is a glossary covering all the acronyms used in this book. IEM for example, is the INFOSEC Evaluation Methodology and it is a follow-on of the IAM or INFOSEC Assessment Methodology, but you knew that right? Me neither. The authors do discuss the acronyms and what they mean, but it would have been nice if the TLAs (Three-Letter Acronyms) were in one place.

By the time I was done reading the book, I had a fairly good idea of what IEM and IAM meant. Some of the book provides cautions on what and what not to say an din offering and not offering certain kinds of advice as to avoid future litigation to those involved in white-teaming or red-teaming but nothing about tiger-teaming (maybe tiger-teaming is just DOD and DOE activities?).

Anyhow, if you are a security consultant, and are interested in outlining methods and following methodology regarding technical security evaluations this book takes a look at the law and industry regulations not so much to skirt but to hide behind. (Sorry, I don't mean to be callous or flippant, but I've been watching FEMA in action and I have a bad taste in my mouth that is coloring my review of all things governmental.)
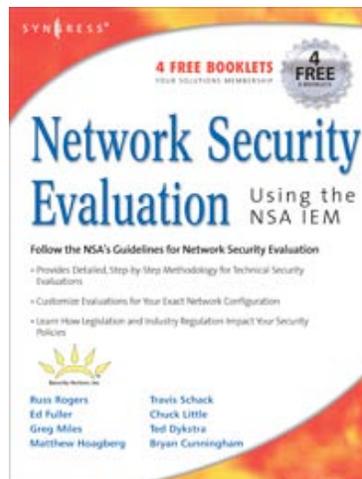
This is a "Beltway" book designed for those inside the beltway and Washington DC red tape and tends to be painted in Washington-speak. It would be of value for DC area highly–paid security consultants.

Cautions regarding overselling, over-promising, scope creep and expectations are typical for contractual environments. Ten areas for IEM-centric baseline activities are provided. Much of the discussion is high-level and avoids getting too technical. It should have gotten technical.

Towards the back of the book the 17 IAM-centric areas are discussed, where previously in the book they were glossed over but not detailed. You might get more out of the Appendices where the examples of INFOSEC tools and Technical Evaluation plans are shown.

The book even discusses metrics. (My definition is that metric spread out the blame so far that nobody has responsibility when things hit the fan. That is by design.)

There are misprints and duplication in the book showing that some more care could have been taken by the editing staff. I hope the next edition has been rewritten or improved somehow.

That said, there are3 Parts, that can be summarized in the last chapter (16) in pre, during and post evaluation phases.

Most value would be in the first part where scope is discussed for the Organized Union of Critical Care contracted by Our Lady of Perpetual Pain Memorial Hospital. Yes, the acronym for the example Union is OUCH. The authors do have a quirky sense of humor after all.

Spring into PHP 5 reviewed by Robert Pritchett

Author: Steven Holzner;
http://www.oreillynet.com/pub/au/1427
Addison Wesley Professional
http://www.awprofessional.com
Spring Into Series
Booksite: http://www.awprofessional.com/title/0131498622
$30 USD, $42 CND, £22 GBP, €26 EU
Published: April 12, 2005
Pages: 360
ISBN: 0131498622
Requirements: PHP 5 http://www.php.net; Knowledge of
programming languages.
For PHP 5 newbies.
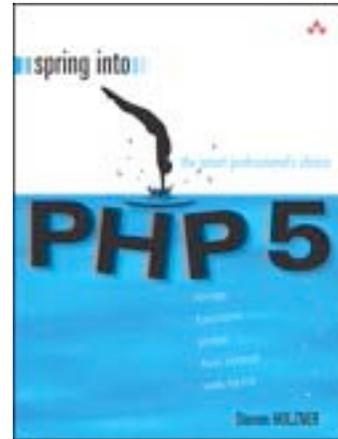
Strengths: Quickly gets up to speed with PHP 5.

Weaknesses: No errata page on the booksite.

Other Reviews: Michael J, Ross:
http://books.slashdot.org/article.pl?sid=05/08/11/0213206&from
=rss

Spring into PHP 5 by Steven Holzner is a newbie's book on PHP 5. It also some focus on
MySQL, since PHP and MySQL seem to go hand in hand.

Following the Spring Into format, each of the 9 chapters are well organized and easy-to-read. If
you have a short attention span, you will see that each topic in each chapter doesn't go much
beyond 2 pages.

Steven Holzner has had plenty of experience writing books and his how-to formula works.
Chapter 1 is predictably an intro and each succeeding chapter digs a little deeper into PHP-dom
as each builds on the previous regarding Operators, Flow Control, Strings, Arrays, Functions,
HTML controls in web pages, web forms and validation, Object-Oriented programming and file
handling. Back in Chapter 8, he reviews My SQL followed by PHP apps such as cookies,
sessions, ftp, Email, hit counters and removing data. There are tow Appendices on language
elements and a function reference. So the book can also be used as a reference guide and not just
a "how-to" kind of book.

Nearly all the chapters have plenty of illustrations and examples and Michael J. Ross points out a few gotchas in his review since there is no errata page on the booksite. And we all know by now that code books tend to get lost in the translation at the printers and invariably have one or two code examples that get lost.

We reviewed some PHP + MYSQL books earlier, and you may wish to refer to those when getting into MySQL, since it is glossed over somewhat in this book. The intent is to Spring Into PHP 5 and get you started and this book does just that.

Spring Into Linux: the Smart Professional's Choice reviewed by Robert Pritchett

Author: Janet Valade
Addison-Wesley
Spring Into Series
http://www.awprofessional.com/springinto/
Booksite: http://www.awprofessional.com/title/0131853546
Released: 2005
Pages:
$30 US, $42 CND, £22 GBP,   €26 Euro
ISBN: 0131853546
For Linux wannabees.
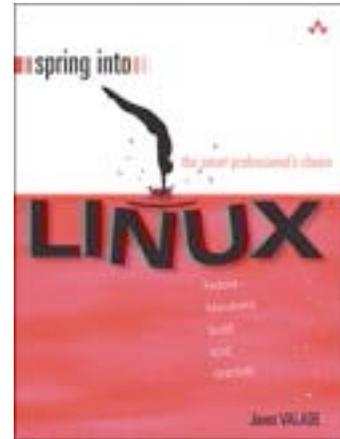
Strengths: Beginner's book on Linux.

Weaknesses: Missing in action - anything Maclike.

Spring Into Linux: the Smart Professional's Choice by Janet Valade is a tutorial on Linux intended for folks that are familiar with either the Windows or Macintosh environments.

Janet Valade hits all the important topics and even gets into some of the Linux distributions, but you won't find references to either Yellow Dog or Ubuntu for the Mac here.

What you will find in 19 chapters are discussions on Open Source Software, looking at either Red Hat/Fedora. Mandrake, SuSE and a little bit on Slackware, Debian, MEPIS, Xandros, Linspire and Gentoo and Live CD distributions such as Knoppix, Mandrake Move and MEPIS. She also writes about how to prepare your PC for installing and configuring various Linux distros, interacting with either rGNOME or KDE, working with the desktops, using the command line, running Linux accounts and handling file management, applications and programs, word processing, spreadsheeting, graphics and printing accessing the Internet, working with multimedia, Email messaging and newsfeeds, editing text files and running shell scripts. There are also two Appendices on regular expressions and a command reference.

After reading and assimilating this book, you will have a relatively good grasp of the Linux situation and can possibly speak intelligibly with the Linux crowd.

After reading all these books on Linux and trying my hand at both Yellow Dog Linux and Ubuntu, I still feel that Apple outlinuxes Linux. At least when the local Linux User Group discusses distros and runs through commands, I have a pretty good idea of what they are talking about. Thankfully, most of them use Macs now too.

XML Pocket Reference 3rd Edition reviewed by Robert Pritchett

Authors: Simon St. Laurent;
http://www.oreillynet.com/cs/catalog/view/au/166
Michael Fitzgerald;
http://www.oreillynet.com/cs/catalog/view/au/1365
Booksite: http://www.oreilly.com/catalog/xmlpr3/index.html
$10 USD, $14 CND, £7 GBP, €6 EU
Published: August 2005
Pages: 175
ISBN: 0596100507
Requirements: XML.

Strengths: Hey, it's a Pocket Reference for XML already!

Weaknesses: None found.

XML Pocket Reference 3rd Edition by Simon St. Laurent and Michael Fitzgerald is the Extensible Markup Language Schema guide for document interchange.

This version has new print on Namespaces and XML Schema, RELAX NG and Schematron. If you are looking for XSLT, you need to go elsewhere.

The meat is in the Schema section for elements and attributes.

Hardware

The Plasticsmith unveils the Tux for iPod – Dressed for Success reviewed by Michele Patterson

The Plasticsmith, Inc.
Kathi Beerbohm, Vice-President
205 Old County Road
San Carlos CA 94070-6231
1-650-595-1410, 1-650-595-1710
FAX: 800-394-3774
kathi.beerbohm@plasticsmith.com
http://www.plasticsmith.com/tux
Released: August 2005
$35 USD plus shipping.
Requirements: A 3rd or 4th generation
iPod.

Strengths: Holds either the iPod or iPod
mini upright and on display.

Weaknesses: None found. Okay, tilt or
upright, but not both per base.

Other reviews:
http://www.plasticsmith.com/news

My iPod has become an extension of me whether I'm at the gym or taking a long rode trip or
spending a quiet (really it's never quiet at my house) evening at home! But I always worry that
it's going to get knocked off my stereo or off the night stand in the bedroom. What to do? Well,
Plasticsmith came up with this product that will help prevent these unfortunate events from
happening. The Tux sits on four rubber feet that keep it from slipping, and holds the iPod within
its acrylic sleeves, leaving enough room to plug it in!

Plasticsmith introduced the Tux in August 2005, with its flame-polished acrylic sides and rubber
feet. It securely holds your iPod. It is available in upright and tilt versions for both the iPod and
the iPod mini, in either a white or black base. The iPod fits securely within two slots, snug as a
baby in mother's arms. The Tux has more than protection however. It has style. Now when
people come over and hear the fabulous tunes emanating from my speakers, they see my iPod all
dressed up in its Tux!

Software

DiskWarrior 3.0.3 Battles Hard Drive Corruption reviewed by Mike Swope
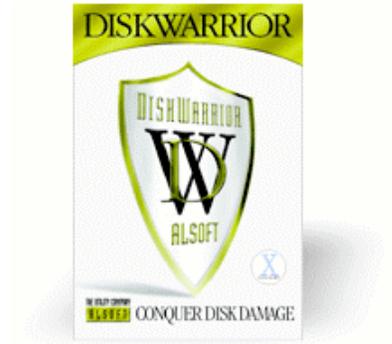
Alsoft, Inc.
http://www.alsoft.com
Released: 2004
$80 USD, $125 CND, £76 GBP, €75 Euro, (Download +CD Combo).
Audience: All Mac users.

Strengths: Extremely easy to use. Repairs hard drive problems other utilities can't repair.

Weaknesses: If you haven't already purchased DiskWarrior, you won't have it when you need it!

You Can't Choose Your Hard Drive Battles

Windows and Mac users alike know the woes of hard drive problems. Or they've heard horror stories about losing valuable data at the most inopportune time (secret: there's no good time to lose data). Sometimes a hard drive just goes bad. Most of the time, however, the problems are minor corruptions in the disk's digital directory structures that become progressively more corrupted over time, after each crash for example, until the system no longer boots from the disk because the directories are corrupted beyond recognition. The physical disk is not harmed in these cases, but the data cannot be accessed until the disk structures have been repaired.

But You Can Choose Your Hard Drive Repair Utility
In a past life, I was responsible for all the Macs at an in-house creative services department. That's 10 times more opportunity for hard drive problems than the average user. When one of those Macs went down, it meant lost productivity, lost revenue, perhaps a lost client. In this environment, I tried several hard disk repair utilities, including Apple's pitifully underpowered Disk Utility, Symantec's high-profile but dangerous Disk Doctor/System Works, and Micromat's impotent Tech Tool Deluxe (supplied with every AppleCare Extended Warranty Package). I discovered DiskWarrior at a MacWichita Macintosh User Group [http://www.macwichita.com] meeting when we were transitioning from OS 8 to OS 9. DiskWarrior is the only repair utility to work reliably, every time, since that time. Saved us $1,000's every year.

Just Boot It
There are two ways to run DiskWarrior. Instructions indicate that DiskWarrior can be dragged to the Utilities folder in OS X and run from there. This installation, however, has several drawbacks. DiskWarrior cannot be used on the boot disk, neither can it be used on the disk where it resides. So if DiskWarrior is installed on and run from a system's regular boot disk, DiskWarrior cannot be used on that boot disk, but it can be used on other hard disks attached to the system. For people who need to use DiskWarrior on their boot disks, this installation won't work.

The best way to run DiskWarrior is to boot from the DiskWarrior CD. This allows users to repair any hard disk attached to their system, including the regular boot disk. Alsoft smartly includes a single-sided 8.5 x 5.5 instruction sheet for this method to run DiskWarrior. Though booting from the DiskWarrior CD can take as long as 15 minutes for systems with slow CD drives, it is still best to run DiskWarrior from its own startup CD. In some cases, DiskWarrior's operations will also take longer, since CD drives are not as fast as hard disks, so users may need to be patient.

Logical Order? Physical Order? Blocks? Volume Headers?
Luckily, users of DiskWarrior don't need to know any specific technical information to use and benefit from DiskWarrior's superior hard drive repair process. Once DiskWarrior is running, users can choose to either repair directories or test hard drives. Most modern ATA hard drives (including those in Apple Macintosh computers) have S.M.A.R.T. internal diagnostic routines built into the drives themselves. I've only had three drives actually fail in more than 10 years - DiskWarrior identified that the last disk to fail had not passed its own S.M.A.R.T. diagnostics. This DiskWarrior feature is one frequently overlooked benefit of installing DiskWarrior into the Utilities folder: DiskWarrior can be set to automatically monitor these internal routines and report problems. This monitoring and reporting can help users save their data before a drive fails completely. In my case, I had to replace the bad drive, but it was under warranty and promptly replaced by the manufacturer.

The directory repair feature is DiskWarrior's most beneficial feature, since directory corruption occurs considerably more frequently than a hard drive fails. The repair feature includes more than a dozen steps, rebuilding directories based on the data found in the original directory. It is important that DiskWarrior does not merely repair a directory; DiskWarrior uses the original data to build an entirely new, pristine directory structure. Other utilities just patch directories, making repairs one after another, a method which can result in sections of the directory being deleted and patched over, which translates to directory damage and loss of access to files. It is for this reason that Alsoft recommends that DiskWarrior be used first on drives when directory damage is suspected. With DiskWarrior, users do not lose directory or disk data.

Bonus! Directory Optimization!
Users of DiskWarrior will also experience an immediate speed increase on disks with directories that DiskWarrior has rebuilt. First, DiskWarrior creates a new error-free directory structure. Second, DiskWarrior optimizes the same directory structures so that the logical order and physical order match and compacting the directory structures.

DiskWarrior: A No-Brainer!

A poll on MacFixIt.com http://www.macfixit.com/archives/november.00.c.shtml#bottomline indicates that DiskWarrior is the most trusted disk repair utility available for the Macintosh. Mac users who are experiencing kernal panics, inexplicable system crashes, and missing files should turn immediately to Alsoft DiskWarrior. At $80 USD, DiskWarrior can easily save that much heartache for home users and a growing number of pro-sumers. In larger professional environments such as in-house creative departments, advertising agencies, video and film studios, and colleges and universities, to name only a few, DiskWarrior can easily save $10,000's in productivity and lost files. Personally, I'd rather pay the $80 USD for DiskWarrior and not need it, than lose a single file for my largest, most important customer. Of course, I also recommend a standard routine for creating off-site backups, just in case.

Mike Swope's Bio: http://www.maccompanion.com/info/aboutus.html#mikeswope

Macromedia Studio 8 reviewed by Robert Pritchett

Macromedia, Inc.
601 Townsend Street
San Francisco, CA 94103
415-832-2700
1-800-457-1774
http://www.macromedia.com/
Product Page:
http://www.macromedia.com/software/studio/productinfo/faq/
Released: September 13, 2005
Studio 8 - $1,000 USD, $400 USD Upgrade. A 30-day try-before you-buy is also available.
Dreamweaver - $400 USD or $200 USD Upgrade.
http://www.macromedia.com/software/dreamweaver/
Fireworks 8 - $300 USD or $150 USD Upgrade.
http://www.macromedia.com/software/fireworks/productinfo/faq/
Flash Professional 8 - $700 USD or $300 USD Upgrade.
http://www.macromedia.com/devnet/flash/
Contribute 3 - $80 USD.
http://www.macromedia.com/software/contribute/productinfo/faq/
FlashPaper 2 - $80 USD or $700 USD 10-pack.
http://www.macromedia.com/software/flashpaper/productinfo/faq/
HomeSite+ - $100 USD (Windows-only)
http://www.macromedia.com/software/homesite/productinfo/faq/
ColdFusion MX 7 Developer Edition - $1,300 USD or Upgrade $650 USD. (Windows, Linux, UNIX, with developer-only for Mac OSX).
http://www.macromedia.com/software/coldfusion/productinfo/faq/
System Support Matrix:
http://www.macromedia.com/software/coldfusion/productinfo/systemreqs/fp_frameset.html
Studio 8 Features Tour:
http://www.macromedia.com/software/studio/productinfo/features/
Forums: http://www.macromedia.com/support/forums/
Languages: English, French, German, Japanese, Italian, Korean, Spanish, Simplified Chinese and Traditional Chinese.
Requirements: Mac OS X 10.2 8 or later; G3 500 MHz or later; 128 MB RAM and lots of hard drive space. Windows 98 SE, Win 2000, or XP; MSIE 5 or later; 128 MB RAM and lots of hard drive space.
Tutorials: http://www.macromedia.com/devnet/interactive/
Used on an iMac G5 with 1 GB RAM.

Strengths: Cross-platform. Great tools for the bundled price.

Weaknesses: Some apps and functionality is still missing for the Mac.

We talk about Studio 8: http://www.macreviewcast.com in episode #22 the Mac ReviewCast.

If you have been using Dreamweaver MX 2004, you are going to so like Macromedia Studio 8! It is the soup-to-nuts Cadillac of web design and raises the bar to competitors for getting web jobs done professionally and efficiently. Macromedia has pretty much pulled everything together into one great whole and navigation is almost Mac-like and nearly one-button accessible. The Macromedia mantra is; "work more efficiently" and apparently they "eat their own dog food".

I've been permitted to use the Beta version of Studio 8 for a couple of months now under NDA and now I can speak out about it publicly. I was permitted to a private on-line showing of the new features, and during the discussion asked about the pending merger between Adobe and Macromedia. The stockholders voted in favor on August 24, 2005 and now it is up to the SEC to allow the $3.8 billion USD acquisition to go forth. I had already been through Adobe CS2 and was curious how Macromedia would come out, since both companies have competing products. A lot was left guardedly unsaid. I would love to see what share of chocolate gets mixed with peanut butter between these two excellent companies. And it will be interesting to watch which products get "retired" and which move forward.

Studio 8 is all about a total immersion experience and being the bottom line when it comes to productivity with professional web design. Now all I have to do is apply myself, because Macromedia provided nearly, if not all, the tools I need to make my/our website successful. The mechanics and gee-whiz magic is done and all I/we really need to do is provide content that will keep bringing back those who want to learn about what /we offer at *macCompanion*.

Adobe is already beginning to let on about CS3 (Adobe Acrobat 3D and Adobe Full Frame). Meanwhile Macromedia has taken FlashPaper 2 http://www.macromedia.com/software/flashpaper/ that was on-again, off-again for Mac OS X and it is back on again as part of Contribute 3, but the HTML links still don't come alive like they do with Adobe's Acrobat Professional for creating PDFs. FlashPaper 2 comes as part of Contribute 3 http://www.macromedia.com/software/contribute/.

We've been offering each monthly issue of *macCompanion* as a FlashPaper download for nearly a year now, because we use Microsoft Office on the Mac. We thought it would be a good way to bring over folks from non-Mac environments, since Flash is on about 90% of all other platforms. We can now do as we once did in Mac OS X again. FlashPaper 2 prints to a FlashPaper 2 virtual printer much like printing to PDF for Adobe Acrobat printing, though still "limited" for some reason.

Oh, and Fireworks 8 for me is basically a replacement and worthy contender for Adobe Illustrator, but it does a lot more. To learn more about each piece of Studio 8, click on the FAQ links provided above.

What's missing? Freehand (with Contribute 3 and FlashPaper 2 as the replacements).

What else is included? ColdFusion MX 7 Developer Edition (developer-mode only for Mac OS X), HomeSite (Windows-only). [Editor: See the Macromedia review of ColdFusion MX 7 Enterprise in the next issue of *macCompanion*.] The Flash 8 Video Encoder also helps with creating interactive video online.

Flash Professional 8 and Flash 8 Video help us with custom*easing* instead of custom*izing*. Go watch the videos to learn more, or we will be here all day explaining.

There is also the improved Cascade Style Sheets (CSS) interface and integration of XML data feeds. The CSS implementation has a very good interface with Dreamweaver for point-&-click code and content manipulation.

What I thought interesting also, was the ability to collapse code to the left column as a way to minimize viewing to focus on areas that need to be improved, assuming the sections that have been shrunk are in good shape in Dreamweaver. All I can say about Dreamweaver is that it is the app that the other web design companies have to compete with. It is the Photoshop of the web design world.

I've always been a bit leery about Flash, but after seeing that it is much more than just glitz when used properly, I am now convinced now to take a good run at it. With Flash Professional 8, things like blurs, drop shadowing and glows no longer are done outside the program and then imported. Effects are seen immediately. Flash Player 8 provides security controls and privacy options as well as doing text rendering.

Fireworks 8 has helped me edit drawings and tweak here and there as needed. It covers soup-to-nuts in graphics design, whether vector or bitmap. This is one package that is going to be a lot of fun learning as I work on photo retouching, animating and using 26 more blend modes and motion blurs.

And you have to view the tutorials in the Macromedia Development Center! There are information pieces by a number of authors covering each of the products in Macromedia Studio 8 and other products not in Studio 8 at http://www.macromedia.com/devnet/?promoid=CABC.

After going through those, you also need to go to register as a Macromedia Member at the Macromedia On Demand seminar library and then you can view the online seminars through this page: http://www.macromedia.com/cfusion/ondemand/index.cfm?id=227&type=1. And you have to allow pop-ups to view the Flash videos. I found these to be first-rate and they are going to give both Total Training and Lynda.com a run for their money, since these tutorials are essentially free, except for your need for a fat pipe on the Internet to view them.

I show the individual costs for each of the modules in Studio 8 so you can see what they "really" cost vs. what the cost is by getting them as a bundle in Studio 8. Yes, Macromedia Studio 8 is "spendy". But you do get what you pay for. After all, Adobe thought so much of the company that they acquired it for $3.8 billion.

Downsides? My experience in Dreamweaver with *Design View* was that it really wasn't WYSIWYG (What You See Is What You Get) when looking at *macCompanion* in *Safari*. Derek said I really should be testing in *Opera* to get the "real" view instead of me designing to *Safari* to the exclusion of viewing the results in all other browsers. I probably still don't have it set up correctly. One of the beta programming team stopped what he was doing long enough to address some of my issues I had in the Beta version for a few hours one evening until the "a-hah!" light kicked on in my head, but there is still an awful lot to learn about this set of excellent tools that have landed in my lap. Besides online free tutorials and Flash video training, Macromedia also has seminars online to sign up for, for a fee. They always seem to be full, but they can be found here: http://www.macromedia.com/cfusion/event/index.cfm?event=list&type=live_online_seminar&loc=en_us.

What impresses me the most about Studio 8? They seem to have been able to get everything working together and they keep adding   and applying W3C standards as well as other standards like those associated with accessibility. I love the nearly one-button ability to add functionality. In fact, because my time is precious, I need that more than anything. They promised and they delivered.

I highly recommend moving to Macromedia Studio 8 if you do any kind of web design or Internet-based function that involves anything from text to multimedia on multiple platforms, and that includes mobile devices. What have you got to loose anyway? They offer a 30-day try-before-you-buy, so go have at it if you are curious or need a truly professional suite to help you do your job. Studio 8 is a *full* plate! And there is desert afterwards…

I'm looking forward to the merge between Adobe and Macromedia and expect to see great things come of the excellent programmers at both companies in the near future.

MacShield, Enhanced Edition reviewed by Eddie Hargreaves

Centurion Technologies, Inc.
512 Rudder Road
Fenton, MO 63026
636-349-6100
800-224-7977
FAX: 636-349-5431
Sales@centuriontech.com
http://www.centuriontech.com/
$60
Requirements: Mac OS X 10.3 - 10.4

Strengths: Can restore operating systems to pre-defined configuration with only a restart; good for many environments.

Weaknesses: Not as useful for individual use; cannot save new system configuration over existing one.

These days, some Windows users are getting so fed up with how poorly their systems are running due to viruses, spyware and adware, they're junking their computer and buying a new one. Centurion Technologies is helping users avoid situations like that with their Instant Restore™ software, which allows you to quickly return your system to a pre-configured state.

With MacShield Enhanced Edition, Centurion has brought enterprise-level software to home users. The program write-protects the hard drive and records all changes to a temporary storage area. During use, the computer acts as though everything is permanent. But when restarted, all those changes are erased and the system is restored to the pre-determined configuration.

Of course, viruses and other malware are not much of a concern on the Macintosh platform, so the use of MacShield EE to protect against such threats is overkill for now.

But there are plenty of situations where MacShield would come in very handy. In a school environment, for instance, MacShield will ensure that no student can do any permanent damage either accidentally or on purpose. If a computer's purpose is as a demo machine (trade shows, in-store use, MUG presentations) or as a single-purpose device (mall kiosk use), MacShield provides a level of comfort that a simple restart will always restore the machine to perfect working condition.

Unfortunately, although Mac OS X is far more stable than the classic Mac OS, there are still times when an unwanted restart is required. If data does need to be saved to the hard drive beyond a restart (e-mail, documents, images, etc.) a Persistent Storage space can be set up.

Additionally, certain users can be designated as persistent and will be unaffected by a restart. This could be useful for you if you want to test out software but are afraid of what it might do to the stability of your system.

If you let visitors use your Mac on an occasional basis, you could set up MacShield and know they'd have full capabilities but would be unable to permanently affect your computer.

I've worked in a pre-press workplace where some machines became so unstable that the users would perform a clean install of the system and painstakingly re-install all the applications, utilities, fonts, and such every few weeks. If they could've saved that final, ready-to-go configuration and simply restarted when necessary to bring it back, it would've saved many hours of overtime.

But MacShield EE isn't for everyone. If you're the only user of your Mac, this isn't the best software to protect you from your own mistakes. If you accidentally trashed an important file, you could restart to bring it back. But it would also forget everything else you did since setting your original configuration, from changing your desktop to downloading some files, to adding a few bookmarks. The configuration that you set for MacShield to remember cannot be overwritten with the current state you have arrived at.

If you manage Macs, loan yours out on occasion, or have some users on your machine you don't trust, MacShield Enhanced Edition could be a time-or-life-saver. But if you're the only person who uses your Mac and you continually configure it to meet your evolving needs, this product will probably just frustrate you.

Shadow 2 – Always-on Backup reviewed by Robert Pritchett

NewTech InfoSystems, Inc.
5 Mason Drive
Suite 150,
Irvine, CA 92618
949-421-0720
FAX: 949-421-0750
http://www.ntius.com
Released: August 17, 2005
$30 USD
Requirements: G3 or later; Mac OS X 10.2 or later; 128 MB RAM, 15 MB hard drive space or Windows 2000/XP with 300 MHz CPU or later, 128 MB RAM an d10 MB hard drive space.
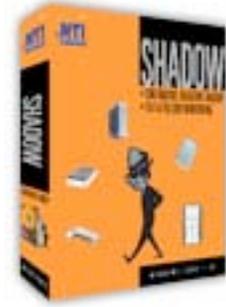
Strengths: Real-time cross-platform backup capabilities.

Weaknesses: None found.

Since my weird experience with my iMac G5's hard drive self-effacement last month, I figured I'd better do something about it since I neglected to copy my pending files before I did an update and the drive disappeared off the desktop. Enter our web master and he says he bough t5 copies of NTI's Shadow 2. It works on either the prevalent non-Mac environment and also on the Mac.

So I asked for, installed and then asked for some more copies for our Switcher competition that ends October 31st.

NTI's Shadow 2 is very nice. It works in the background, can be configured to work with version control, does file filtering by category, detects USB devices and supports nearly all USB devices that have storage, FireWire drives and NAS and Network devices besides also doing internal hard drives.

Scheduling can occur at any time for automatic real-time or continuous backup. Isn't this something that should have been on the Operating System from the beginning?

Set up walks through What, Where, How, When and even provides a Summary of actions taken. It's so simple, even I can use it since the weakest link is he person at the computer and I obviously fit that profile. I like automating the process. Install, setup and forget. Do o see anything wrong with that? Me neither!

Screenshot 1 — NTI Shadow (Welcome)

NTI Shadow

Welcome to NTI Shadow

Jobs

Name	Source	Target
default job	/Users/rpritchett/Documen	/Volumes/WiebeTech1

New Delete Edit Start Now Disable

NTI Shadow

○ On ○ Off

Help OK

Screenshot 2 — What to backup?

NTI Shadow

EasySteps
What
Where
How
When
Summary
Help

What to backup ?

Job Name: rpritchett20050830171424

To add another folder to monitor, just click "Add..."
To remove a selected folder, just click "Remove"

Add... Remove

Back Next Cancel Finish

Screenshot 3 — When to backup?

NTI Shadow

EasySteps
What
Where
How
When
Summary
Help

When to backup ?

Scheduling

○ Synchronize my files every time I save to my source folders
○ Check source folder for changes every 10 Minutes
○ Check source folder for changes every
 S M T W T F S
 ☑ ☑ ☑ ☑ ☑ ☑ ☑ at 17:14

Back Next Cancel Finish

Screenshot 4 — How to backup?

NTI Shadow

EasySteps
What
Where
How
When
Summary
Help

How to backup ?

Revisions

○ Don't save revisions
○ Save unlimited revisions
○ Save limited revisions 5

File Type Filters

Filter specific file groups to back up. With this option, only selected file groups will be backed up.

Filter...

☐ Show progress window when copying

Back Next Cancel Finish

Screenshot 5 — When to backup?

NTI Shadow

EasySteps
What
Where
How
When
Summary
Help

When to backup ?

Scheduling

○ Synchronize my files every time I save to my source folders
○ Check source folder for changes every 10 Minutes
○ Check source folder for changes every
 S M T W T F S
 ☑ ☑ ☑ ☑ ☑ ☑ ☑ at 11:55

Back Next Cancel Finish

Screenshot 6 — Summary

NTI Shadow

EasySteps
What
Where
How
When
Summary
Help

Summary

The source folder is:
 /Users/rpritchett/Desktop/September

The destination folder is:
 /Volumes/WiebeTech1

Don't save revisions

The file inclusions are:
 No file inclusion filter

The file exclusions are:
 No file exclusion filter

Synchronize my files every time I save to my source folders

Back Next Cancel Finish

BeLight Software, Ltd.
PO Box 47
65005, Odessa
Ukraine
+380 48 738-08-49
info@belightsoft.com
http://www.belightsoft.com/swiftpublisher/
Requirements: G3 or later; Mac OS X 10.3 or later; 50 MB hard
drive space or 1.8 GB for full clipart install; CD-ROM drive (for
install from CD); Printer. Core Imaging requires Mac OS X 10.4
or later.
Resources:
http://www.belightsoft.com/products/swiftpublisher/resources.php
Download: $35 USD;
http://www.belightsoft.com/download/download.php
Released: August, 2005
CD $40 USD plus shipping.

Strengths: Does for brochures, catalogs, flyers, printed media
newsletters, etc. what Adobe InDesign or QuarkXPress does for
magazines.

Weaknesses: None, really. Okay, no HTML exporting yet.

Swift Publisher is a product that Apple's Pages should have been. It does for printed media
newsletters, flyers brochures and catalogs brochures, cards, catalogs, flyers, menus, printed
media newsletters and posters what Adobe InDesign or QuarkXPress does for magazines.

Download a copy and try it if you are tasked with providing printed content that is not page-
intensive.

Swift Publisher Help is excellent and gets us up to speed quickly. And is a natural progression of
earlier Apple Apps from BeLight Software.

The main window has three panels; Clipart (Collection, iPhoto, Shapes and Custom), Design Canvas and the Inspector, (which reminded me a lot of the Apple Keynote 2 Inspector showing this is a Cocoa-based application).

Swift Publisher exports to JPEG, PDF or TIFF, so the final products can be viewed on any computer platform. It also imports most graphic formats including EPS, GIF, JPEG, PDF, PNG and TIFF.

As a starting point there are a large number of templates to choose from. There are also graphics manipulation features such as shading, stacking and text-wrapping. While we can import and edit (crop, filter, frame, mask,) images from various sources, the preferred way to import text is by creating a text box first and importing from the Clipboard or simply by dragging and dropping. Many of the text manipulation functions are quality and rival text editors that cost much, much more in other Desktop Publishing apps for adding, deleting and modifying text (rotate, resize, align, wrap, space, lists, links, styling, spelling, finding and replacing).

Fold marks also can be added for creating tri-fold brochures.

Backgrounds are on a separate layer, so so-called "skins" can be edited separately from text and images.
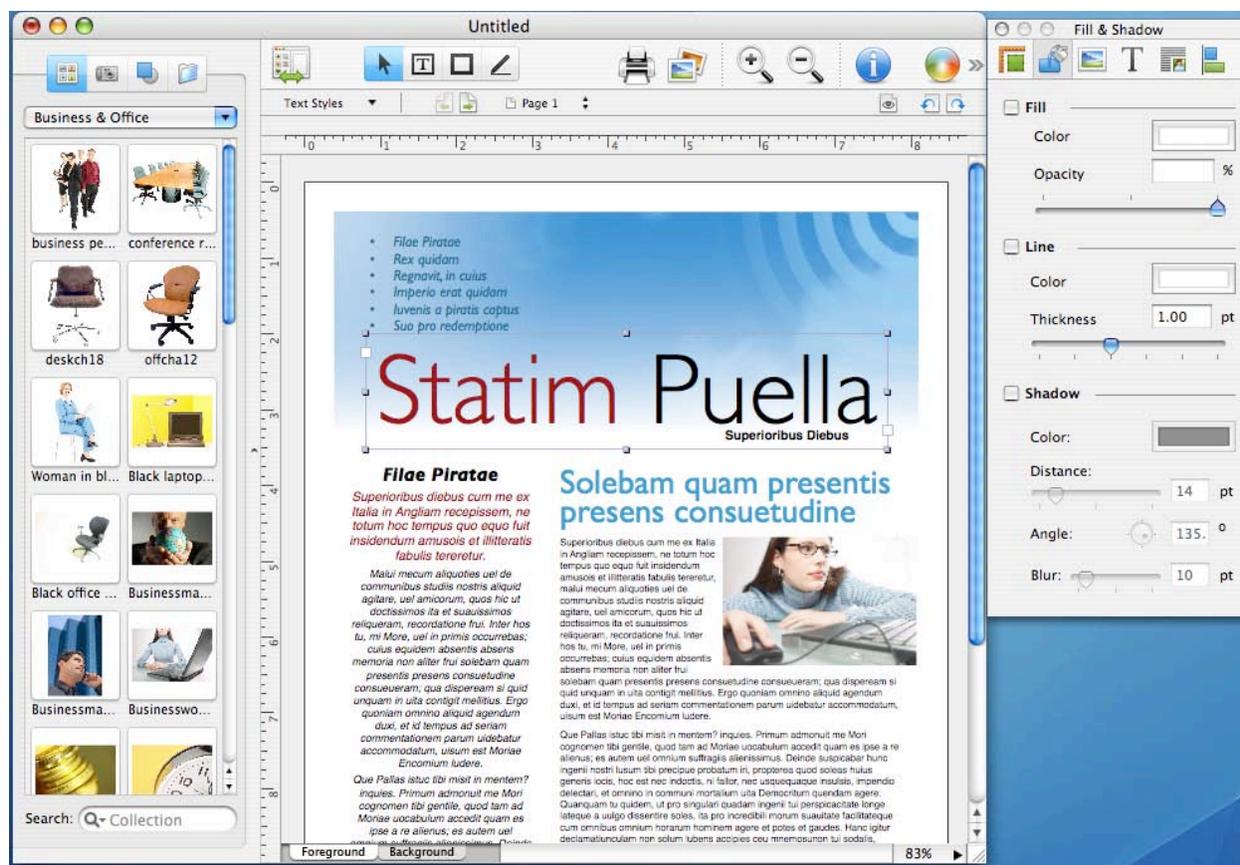
For the price, getting the CD version is worth the cost of the additional Clipart (nearly 2 GB of hard drive space required, assuming you don't have other Clipart resources for doing Desktop Publishing). There are 23K images, 100 or so masks and 100 or so templates that are also customizable.

Downsides? Following traditional Desktop Publishing-think, HTML exporting is not available yet. After all, it is designed for doing printed material. And that is its strength.

If you do small-run publication for handouts or newsletters, this app is a great way to get the job done quickly without having to have a degree in publishing and without taking up a lot of valuable time. The culture of well-designed Mac apps requires intuitiveness. Swift Publisher excels at this. Apple would be hard-pressed to do better.

Training

MathScore reviewed by Robert Pritchett

Accurate Learning System Corporation

Developer: Steven Yang
http://www.mathscore.com/
http://www.mathscore.com/contact_us.html
http://webcrossing.com/Home/products/hotnews/pressreleases/33
$30 USD for school systems $20 USD for Home use.
Demos: http://www.mathscore.com/demos/home/
Requirements: Internet connection.

Strengths: Online access from anywhere and from any computer system. Short learning curve to begin using the program.

Weaknesses: None found.

Mathscore by Steven Yang, is a cross-platform online subscription service for Elementary and Middle School 2nd through 8th grade students designed to help learn mathematics from adding, subtracting, division and multiplication to pre-algebra and geometry. Later on Steven will program for higher mathematics to help students ace the math portion of the SAT tests, but for now, he is focusing on the basics, so students can do well on such things as the California Standardized Testing and Reporting (STAR) exam or our own Washington State's Washington Assessment of Student Learning (WASL) battery of tests.

Mathscore does a great job as a management program for instructors so they can identify where students need to concentrate to improve their understanding of mathematics as the students work through the online worksheets.

This is an online service that costs school districts something like $30 per year per student or for homeschoolers, a monthly automatically renewable subscription for around $20. Students in school systems that have purchased this service can access from home so they are not tied to a computer lab or limited by schedules at school to access as long as they know their student account number. Instructors are given special administrative accounts so they can monitor activities either real-time or as class reports.

The program is designed using adaptive technology for self-paced learning. This means that students don't have to begin at the beginning and work through each worksheet if they demonstrate accuracy and speed in certain modules. I was permitted to view one set of student results from last year and it showed that some students really get into this who obviously are competing with themselves to improve their scores. Some even went above and beyond 100%! We are talking not a few worksheets, but thousands of problems they have solved during a session. The log shows how much time students spent on problems and not on how long they have been sitting at the computer. When issues are discovered, the system provides instruction on how to work through the problems including step-by-step examples. Oh, and there is no finite end to the number of worksheets students can work on either.

If there are any "cons", those would be no in-your-ear music running in the background (that is okay for a minute or two and then becomes very irritating very quickly) or game entertainment activities that take away from learning the concepts of understanding mathematics and waste time. No pops, bells, whistles, or other noise that would distract others nearby.

I strongly suggest accessing the Demos listed above. You also have a 30-day try-before-you-buy so you can check it out to see if it meets your needs. I think you will not just like it, but grow to love it if you are an instructor that gets to teach math to the next generation or a parent that needs help tutoring at home.

MATHSCORE.COM

Welcome

What is MathScore?
How to log in

Student Experience

Selecting a topic
Doing a worksheet
Solution explanations
Mastering a topic

Parent Experience

Tracking Progress
 - **Activity summaries**
 - **Progress per grade**
 - **Stats per topic**
View sample problems

Competitive Analysis
How to Subscribe

Competitive Analysis for the Home

	Pros	Cons
MathScore.com	• Cost is only $19.95 per month • Convenient - usable from any Internet-enabled computer. Even usable while away or on vacation. • Works on PCs, Macs, or any other computer with a web browser. • Promotes high density of work completed in a short period of time. • All results are easily measurable, including time spent and number of problems completed. • Unlimited supply of problems. • Constantly challenges students. • Automated solution explanations and instant feedback. • No installation required. • Upgrades are automatic. • Low bandwidth - 56K modem works great.	• Requires an Internet connection • No "onsite" tutor
"Walk-in" Learning Centers	• On site tutoring is available. • Interaction with other kids. • Well established.	• Cost is around $100/month **per child**. • Extremely inconvenient - parents must adjust their schedules to drop off and pick up their children. • Centers have limited hours. • If not computerized, no instant feedback available. • If working on paper worksheets, students might waste time on something they already understand.
Private Tutors	• More personalized.	• Cost is $20-$100/hour • You must coordinate schedules with the tutor. • Results are difficult to measure.
CD-based Software	• Generally cheap. • Often focuses on teaching.	• No "onsite" tutor • Lessons tend to be slow and inflexible. • Often does not provide much actual practice. • Must be installed, upgraded, etc.

Steven Yang was kind enough to include a Competitive Analysis chart in his Home Demo showing the costs associated with Mathscore vs., other training helps.

For the course administrator, this page is a real boon, because it automatically updates in real time for all activity. One can quickly see where students may need extra help or see those who are excelling and see who is taking he time at home instead of taking time in the classroom to do the work.

MATHSCORE.COM *School Demo*

View Worksheet History

Worksheet histories provide you with all of the worksheet settings and number correct/skipped/incorrect for every worksheet completed. Teachers can view worksheet history for any student on any topic. Students can view their own history.

Below is the worksheet history for a real student who struggled to master his addition math facts. He worked really hard, and he eventually succeeded after having finished more than *3000* problems. This is impressive for two reasons:

1. He had the motivation to do 3000 problems.
2. It took that much practice to master this skill.

This story is not at all unusual. We've seen many students who were weak with math facts master such skills with similar amounts of effort. Our system provides realistic goals, which may be a key factor that keeps students motivated to work so diligently.

Please note the "**mode**" column. For each worksheet, if the mode has a number, that is the number he was working on. For example, if the mode was 4, then every addition problem on the worksheet was 4 + something. If you scroll around, you can see how this student struggled with nearly everything, even his 2's and 3's.

Level	Complexity	Mode	Num Problems	Num Right	Num Missed	Num Skipped	% Right	Time Spent	Time Limit	Date Completed
19 (100)	11		50	20	1	29	40	80	80	2004-10-28 09:37:51
18++ (90)	10		50	50			100	128	130	2004-10-28 09:35:40
18+ (90)	10		48	48			100	122	130	2004-10-28 09:32:53
17++ (85)	10		30	30			100	80	80	2004-10-28 09:28:42
17+ (85)	10		26	26			100	67	80	2004-10-28 09:26:34
17 (85)	10		26	24		2	92.3077	80	80	2004-10-28 09:24:28
17+ (85)	10		25	25			100	78	80	2004-10-28 09:22:19
17+ (85)	10		24	24			100	79	80	2004-10-28 09:20:43
17 (85)	10		24	23	1		95.8333	71	80	2004-10-28 09:15:32
17 (85)	10		24	23	1		95.8333	74	80	2004-10-28 09:13:24
17- (85)	10		28	20		8	71.4286	80	80	2004-10-28 09:08:08
17 (85)	10		28	25		3	89.2857	80	80	2004-10-28 09:05:55
17 (85)	10		28	27		1	96.4286	80	80	2004-10-28 09:03:41
17+ (85)	10		24	24			100	68	80	2004-10-28 09:01:31
17 (85)	10		24	22		2	91.6667	80	80	2004-10-28 08:58:18
17- (85)	10		30	21	1	8	70	80	80	2004-10-28 08:56:04
17 (85)	10		30	26		4	86.6667	80	80	2004-10-28 08:54:36
17+ (85)	10	10	20	20			100	51	60	2004-10-28 08:52:42
17- (85)	10		30	23	1	6	76.6667	80	80	2004-10-22 09:00:10
17 (85)	10		30	28		2	93.3333	80	80	2004-10-22 08:58:41

(Sidebar navigation: Welcome — Who should use this?, How to log in; Student Experience — Introduction, Selecting a topic, Doing a worksheet, Solution explanations, Mastering a topic; Teacher Experience — Introduction, Tracking Progress, - Activity Summaries, - Progress per grade, - Class stats per topic, - View worksheet history, View sample problems; Admin Experience — Introduction, Add Students, View Login History, Edit Classes, Assign Classes, Add Parents; Parent Experience — Introduction, Tracking Progress, - Activity summaries, - Progress per grade, - Stats per topic, View sample problems; How to Purchase)

This page is per-student and shows how far along they are coming in mastering the topic.

As I told Steven, mathematics is a language just like English or Spanish and what this program does is provide students with mathematical vocabulary training. From what I saw, many students take to it like ducks do to water.

If you are working with students and can use help (and who can't ?) with managing the training process regarding mathematics, Mathscore is way out in front. For the price, can you afford not to use it?

Future plans are to include higher grades to help students with college entrance scores for mathematics.

Total Training Masters Collection: Advanced Adobe® Photoshop® CS2 reviewed by Robert Pritchett

Presenter: Deke McClelland
http://www.totaltraining.com/bios/dekemcclelland.asp?mscsid
Total Training, Inc.
1819 Aston Ave.
Suite 101
Carlsbad, CA 92008
1-888-368-6825
mailto:sales@totaltraining.com
http://www.totaltraining.com/
Product site:
http://www.totaltraining.com/prod/adobe/photoshopcs2_adv.asp?mscsid=
Released: April 05, 2005
$150 USD.
Requirements: Adobe Photoshop CS2. A computer system (Mac or
WinTel) that has plenty of RAM (256) and hard drive space (600 MB)
and has audio output. Video resolution should be 1024x768. QuickTime
5.0l.2 or later. Oh, and a DVD drive. Web connection.
Contains: 1 DVD and the Total Training run-time interface player
program and Project files. 8 hours run time.
For Intermediate through Advanced.

Strengths: Cross-platform. Well-organized.

Weaknesses: None Found.

Reviewed under Mac OS X 10.4.2 on an iMac G5 and 1 GB RAM.

Total Training Masters Collection: Advanced Adobe® Photoshop® CS2 is presented by Deke
McClelland. This is really the next set after 3-set bundle with InDesign CS2 and Illustrator we
reviewed earlier.

To use the Training package, the Training Application be installed to run the training videos
(PSCS2 Advanced Launchpad Mac in my case).
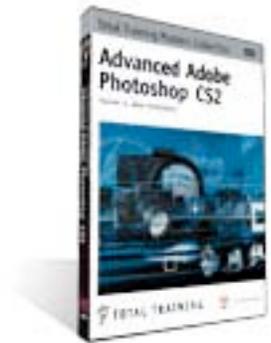
This package has 10 parts discussing customization based on lessons learned by Deke. He also provides all project files to help us walk through as he teaches. The other areas besides customization are using levels bridging and Camera raw, HDR, Sharpen, Blur, Noise, channel mixing and grayscale, Duotones, spot colors, gradient maps, retouching techniques, Vanishing Point filtering and Smart Objects with Illustrator.

Photoshop CS2

There are some excellent on-line reviews of Adobe's Photoshop CS2 application. Deke points out the parts he loves the most about this version and demystifies the others.

If you upgrade to CS2, you will find that the CS2 training packages from Total Training are first-rate!

See Ya!

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http://www.digitaltraining.com/special/maccom

macCompanion **Media Kit**

We are the Macintosh® Professional Network (MPN), Limited Liability Corporation (LLC). MPN, LLC continues to evolve, ever since its creation in 1996 as a way to reach out to those who use computers for a living in an effort to make their lives easier and their work both enjoyable and profitable.

Besides consulting efforts, we also provide monthly book, hardware and software reviews at *macCompanion*. We offer ways and means for folks to get comfortable using the Macintosh™ created by the Apple® Corporation in the multibillion-dollar computer industry. We know that bad software doesn't live long in the Mac™ environment. On the other hand, good computer equipment and software becomes great as the word spreads, and we are very good at helping to spread it. Our suggestions over the years have also helped improve many successful products in use today. Through kind and gentle efforts, we have been able to help many people move to better tools-of-the-trade so they can be more productive in their work.

Besides our website, we also create *macCompanion* as a freely available PDF-based monthly. It averages about 100 pages per month. July 2004 is the first-year anniversary of this labor of love. The *macCompanion* staff is an all-volunteer team of writers and reviewers from many parts of the globe, and they also have a great wealth of knowledge and experience in their backgrounds. That base of talent also continues to keep growing as the Macintosh Professional Network expands.

Statistical Analysis

We are very excited about our site statistics! The multilingual-capable *macCompanion* website surpassed 1 million hits a month, starting June 2004 and readership continues to increase rapidly through our "whisper campaign". Last October we switched over to our current host. They have provided us with excellent support and tools to help us do our job. They have the right tools to do theirs too. It is a great, robust relationship and we are very proud of them.

We continue to get greater visibility every day. Many of the various 35 computer operating systems (with many moving towards the Mac® OS X™ environment), 115 online search engines, 269 countries and domains and 319 online robots have discovered us – and continue to do so. So far, over 201 other websites have also linked to us. Many of our readers have made our site one of their favorites. While nearly 70% of our readership stops by for a quick visit via RSS feeds, over 23% spend between 1/2 to 1 hours at a time going through over 250 different pages on our site (mostly archives). Many of those who quickly drop by, come to get the monthly PDFed issue of *macCompanion*. Over 8GB of bandwidth was used in June 2004 alone for download purposes. Previous months have averaged around 6GB. Trend analysis indicates that will continue to increase.

Advertising with *macCompanion*

We have four advertising options you may choose from, and multiple months will receive a 20% discount for both website and PDF-based ads. All advertising must be paid in advance. We accept credit card payments via PayPal, checks, money orders by regular mail and cash in US currency by hand.

Site Ad Rate

We offer site ads for a fixed-budget price of only $100 per month on our site. Following the KISS principle, we accept banner ads in only one size at this time - 468x60 pixels (per the Interactive Advertising Bureau standards for a Full Banner Ad Interactive Marketing Unit.) The ad will be rotated through with other ads, and there is no limit to how many you want to include.

The billing cycle begins based on the first day the ad placed on the site and is renewable on a monthly basis. This can begin immediately or at any time.

(If you want us to create those online-ads for you, the cost is $100 per hour, with a minimum 2-hour base fee.)

PDF Ad Rates

The published monthly version of *macCompanion* has a closing date of the 25th of each month for ads. Our target date for distribution begins the 5th of each month. Placement of the ads will be at our discretion, but we do listen to your suggestions.

Each ad will require a site link so our readers can click on the PDF ad and go to your site. Ads need to be submitted as PDFs with at least 300 DPI resolution.

(If you want us to create those ads for you, the cost is $100 per hour, with a minimum 2-hour base fee. You will then need to send us proofs, etc. in JPEG or GIF formats.)

Rate Table

Page Size: 8 1/2" x 11" No bleed				
Style	**Rate**	**Size Fractional**	**Size Decimal**	**Size Centimeter**
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1/8th Page Horizontal	$50 USD	3 1/2 x 2 1/4 in	3.5 x 2.25 in	8.9 x 5.7 cm
1/8th Page Vertical	$50 USD	2 1/4 x 3 1/2 in	2.25 x 3.5 in	5.7 x 8.9 cm
1/4th Page Vertical	$60 USD	3 1/2 x 4 3/4 in	3.5 x 4.75 in	8.9 x 12.1 cm
1/2 Page Horizontal	$100 USD	7 1/4 x 4 3/4 in	7.25 x 4.75 in	18.4 x 12.1 cm
1/3rd Page Horizontal	$70 USD	7 1/4 x 3 1/4 in	7.25 x 3.25 in	18.4 x 8.3 cm
1/3rd Page Vertical	$70 USD	2 1/4 x 9 7/8 in	2.25 x 9.875 in	5.7 x 25.1 cm
2/3rd Page Horizontal	$150 USD	7 1/4 x 6 1/4 in	7.25 x 6.25 in	18.4 x 15.9 cm
2/3rd Page Vertical	$150 USD	4 3/4 x 9 7/8 in	4.75 x 9.875 in	12.1 x 25.1 cm
Full Page	$250 USD	7 1/4 x 9 7/8 in	7.25 x 9.875 in	18.4 x 25.1 cm

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Email works best.

Well that's it for this issue. Please come back again next month!