

Bryson Leidich professional photographer

by Gary Brandt

Our October meeting will feature professional photographer Bryson Leidich, who has given us demonstrations previously on photography. His program in October will focus on using RAW image files as an alternative to JPEG files. RAW files contain all of the image information taken by the camera. On the other hand, JPEG files are compressed when they are saved.

Your particular needs may require you to use both file types so having Bryson come in to explain each type's advantages seems especially worthwhile. KeyMac has many amateur photographers who can benefit from Bryson's many years of experience in photography, so mark your calendars and plan to attend the October 16 meeting. And bring a friend as this program is for all photography enthusiasts.

Meet us at

Gannett Fleming

Gannett West Building
209 Senate Ave ❖ Camp Hill

Tuesday, October 16, 2007, 6:30 p.m.

Attendance is free and open to all interested persons.

Contents

Keystone MacCentral is a not-for-profit group of Macintosh enthusiasts who generally meet the third Tuesday of every month to exchange information, participate in question-and-answer sessions, view product demonstrations, and obtain resource materials that will help them get the most out of their computer systems. Meetings are free and open to the public. The Keystone MacCentral Printout is the official newsletter of Keystone MacCentral and an independent publication not affiliated or otherwise associated with or sponsored or sanctioned by any for-profit organization, including Apple Computer, Inc. Copyright © 2007, Keystone MacCentral, 305 Somerset Drive, Shiresmanstown, PA 17011.

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trademark symbol in every occurrence of a trademarked name, we are using the trademarked names only for editorial purposes and to the benefit of the trademark owner with no intent of trademark infringement. ARLEY GANNETT NGINEERING COMPLEX CIRCLE WADE BRIDGE NO BUILDING ON THE LEFT FTER THE STOP SIGN ANNETT WEST BUILDING CO SENATE AVE HARRISBURG CENTER ST Use Side Entrance

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Keystone MacCentral Essentials

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President's Corner

Hard to believe it is October already, especially since the weather for the first two weeks of the month has been rather summer-like. Of course, since summer is my favorite time of the year, I have been loving it, but others have complained. My reply is that it will be chilly and then freezing all too soon, so enjoy the bright sunny days while you can. There is still a lot of outdoor work to do before winter, but we hope you will ditch the yard work in favor of KeyMac on Tuesday, October 16, and learn a lot more about digital photography from professional photographer Bryson Leidich, our guest speaker. We are grateful that he has agreed to present to Key-Mac and share his expertise with us all, so don't miss your chance to learn from a pro. You are, of course, welcome to bring along a friend as well!

Speaking of learning, there are many ways to learn, and while I find direct instruction (a teacher/ instructor right in the room with me, ready to answer questions) to be most beneficial, that situation is not always possible. Books are my second choice for learning, but once again, that is not always possible. I may not have the needed book and the library or bookstore may be closed. Prior to the advent of the internet, unless I knew someone nearby who had the book, I was out of luck. Now, I have my laptop and can easily access more information on any given topic than I, or anyone, can ever use. Now, the problem is not obtaining information but winnowing it down to usable data from

reliable sources. The old saying, "Don't believe everything you read," is truer today than ever before. Even the ending .edu on a website address does not guarantee accurate information. One of my 10th grade students once quoted information from such a site, and I questioned it, believing it to be a much too simplistic look at Native Americans. He replied that the ending .edu meant that the information was reliable. Together, we returned to the site and I showed him that the paper he had quoted was written by a 4th grader. Talk about an embarrassed sophomore! "Back in the day" as the kids say, doing research was a lot harder, involving numerous trips to the library and many note cards, but plagiarism was always a concern for teachers. Plagiarism is defined as taking someone else's words or ideas and claiming it as one's own. In my student days BC (before computers) there were students who copied information word for word from books or magazines and then typed that information into their research papers without using quotation marks or citing the source. They thought the teacher couldn't tell the difference between sentences written by a professional from sentences written by a high school student. Yeah, right! Back then, though, teachers had to spend a lot of time looking for the original source plagiarized by the student in order to confront him/her with the proof of the misdeed. Now, though, while students don't have to copy information by hand and then type it into the paper but can instead copy and paste with ease, life is also

easier for the teacher. My school district subscribes to turnitin.com, an online service to combat plagiarism, and I require that my students submit their short stories, research papers, poems etc. to that site before credit is given. If a teacher does not have access to turnitin.com, he/she can select a sentence or group of words that seem better than one might expect from a high school student from the paper in question, put the passage in quotation marks and Google it. If the student got the words online, the results of the search will show this. Neat trick, eh? By the way, one does not have to be a teacher to find the technique of searching for words within quotation marks useful. If you can remember only part of a quotation or poem etc. and want to find the rest, go to Google and put the part you remember inside quotation marks and search.

Here are a few other ways that Google can be of help. I don't want to plagiarize, so am citing my source as Technology Tip #2 from http://www.180techtips.com. http://news.google.com/ for news stories

http://froogle.google.com/ to compare prices and shop

http://catalogs.google.com/ for online catalogs

http://maps.google.com/ for maps or satellite photos

http://video.google.com/ for a video search engine.

Hope to see you all October 16 for a great KeyMac meeting!

Keystone MacCentral Minutes

September 18, 2007

Business Meeting

Jim Carey brought in our new 15 inch MacBook Pro which the club purchased in September after members had given the board prior authority to update our equipment. We also got an H-P Photosmart C4280 all-in-one printer which after rebate was essentially free. We were also able to take advantage of another Apple offer to renew the club's .mac account for a year with a \$30 instant rebate. As Jim was setting up the MacBook Pro, he invited members up to see it.

Meanwhile, President Linda Cober welcomed members back after our summer hiatus. She reminded us that we have postponed the auction from its usual schedule in November to our meeting in April 2008. Webmaster Linda Smith posted a new widget pick of the month. The EasyEnvelopes widget makes quick work of printing envelopes and it can print USPS bar codes. Tim Sullivan mentioned the latest release of Google Earth which allows the user to view the sky. It also includes a flight simulator, accessed by typing Command-Option-A.

Linda Cober explained our rationale for buying the MacBook Pro now rather than waiting for Leopard's release. Apple has in the past offered user groups upgrades to its new operating systems for a nominal fee. We are planning to partition the drive into two partitions so that we can load Tiger on one and Leopard on the other. That way we should be able to

handle any software we need to load for demonstrations at our meetings.

Eric Adams reported adding additional vendors to our vendor database. He now has a bit more time to get letters out to them requesting donations for the auction next year. Jim asked members if they were interested in having professional photographer Bryson Leidich come in to a meeting to explain the differences between RAW and JPEG images. Quite a few members expressed interest so Jim will check with Bryson to see if his schedule allows for it.

Q&A & Comments

Kate Bortner had a question on how to format 8 x 11 documents in Apple-Works to print in booklet form with two pages per printed page. One suggestion quickly offered was to use Pages which may have more formatting options because it has better page layout capabilities. Linda Smith showed how to go into AppleWorks' Page Setup dialog box, choosing the Paper Size option to create a custom format. Kate also mentioned that her AppleWorks documents print with the last character on the right of each line cut off. She had tried different margin options but the problem still occurs. Eric Adams suggested choosing "Any Printer" from the Page Setup>Format For dropdown menu.

Jim Carey asked if anyone knew of a program that would enable him to partition our new laptop's hard drive without erasing the existing System files already loaded on it. We looked online at versiontracker.com and found a demo copy of iPartition which Jim planned to try when time permits.

Marc Soto asked about turning widgets into applications. Bob Levitus had talked about doing that at one of his Hershey Apple Core presentations but no one could remember the program he described. Tim Sullivan mentioned Amnesty Singles, a shareware program that claims to be able to do this.

Program Notes

Our September program was a Mac tips and tricks roundtable. We began by watching Jim Carey use Apple's Migration Assistant to move files from our old laptop to the new Mac-Book Pro. Migration Assistant helps in moving files from another Mac or another volume on the same Mac. Jim began the migration process by choosing the option to move files but not a user. When the process was done, the files could not be located on the MacBook Pro. Apparently, choosing to move a user and its associated files from the old Mac would have been the way to go.

That brought up the subject of using a user account without administrative privileges for added security. This could also help in troubleshooting. We also talked about the new iLife applications. Some users have mentioned problems using iMovie '08. Installation of iLife '08 leaves a copy

of an older version of iMovie on your hard drive untouched so users experiencing problems with iMovie '08 can go back to using their older version.

A new feature in iPhoto '08 is nondestructive image editing. Jim explained that iPhoto '08 saves any editing instructions performed on a file along with the original image. Those instructions are applied to the image file when it is opened again.

Linda Cober mentioned that her iBook gets hot and its battery usage is higher if she has not done a restart for a while. The iStat Pro widget could be helpful to her. It monitors a Mac's internal temperature sensors and battery health.

Eric Adams said he was thinking of buying an iPod Touch. Several other members were also interested in one so we watched a Macworld video in which Jason Snell demonstrated some of its features. Linda Cober offered a tip for shoppers. She suggested doing a Google search by typing in "problems with X" where X is the name of something you are considering buying. The results may point you to forums or blogs where users of that product or service have described their experiences, both good and bad. Linda detailed how this process had helped her sister reconsider a purchase. Someone mentioned that Batteries Plus had been advertising that they replace batteries in MP3 players, including iPods. They have a store in Camp Hill.

Since our original attempt at moving files from our old laptop to our new one had not worked as expected, Jim demonstrated how to start the old laptop in Target Disk mode. Then by connecting it to the new laptop with a FireWire cable it showed up as a hard drive on the MacBook Pro's desktop. Files could then be dragged from one drive to another.

by Adam C. Engst

Macs Speak Clearly with Infovox iVox

The Mac OS has long boasted speech synthesis - the capability to read text aloud - but honestly, the quality of the voices, though perhaps better than the competition, is still pretty awful. No one with a choice would listen to Victoria's robotic intonations all day long, although Jeff Carlson's interview with Fred was a hoot (see "Catching Up with the Voice of Macintosh: Fred," 2003-04-01). (For Leopard, Apple is promising a new voice - Alex - that's supposed to be much better than the current built-in voices.)

For a far better listening experience that you can try today and that reflect worldwide speech patterns, check out the speech quality of the voices in Infovox iVox. They're not perfect; you won't mistake them for real people speaking, but they're a big improvement over the voices Apple ships in Tiger. Designed by the Acapela Group and distributed by AssistiveWare, Infovox iVox provides a wide variety of male and female voices for American English, British English, French, Canadian French, Spanish, American Spanish, Portuguese, Brazilian Portuguese, German, Dutch, Flemish, Norwegian, Swedish, Danish, and Finnish.

I particularly like the high-quality British English voices, perhaps because the slight British accent marks the voice as foreign to my ears, thus causing me to forgive any mispronunciations or hesitations, or rather, to assume that they're part of the accent. And although I'm not sufficiently conversant in any of the other supported languages to understand what's being said, some of them sound even better because of this.

You can listen to the samples on the AssistiveWare Web site, and you can also download the voices to try for a limited time on your Mac. Beware that the voice packs are huge downloads (200 to 600 MB each). The voices work with any application that's compatible with the Apple Speech Manager; Mac OS X 10.3.9 is required as a minimum, but Mac OS X 10.4 is recommended. After running the installer, you can choose different voices in the Speech pane of System Preferences; to test with your own text, look for controls in the Edit menu's Speech submenu (you can always use TextEdit if your preferred writing tool doesn't offer the Speech menu). Through 31-Oct-07, the American and British English voices cost \$99 (normally \$149 and \$219), the non-Scandinavian voices cost \$149 (normally \$219), and the Scandinavian languages cost \$269 (normally \$359, but you get the Swedish Chef for free... just kidding).

Needless to say, anyone who relies on the Mac's text-to-speech capabilities will appreciate the Infovox iVox voices (AssistiveWare provides a video showing how a blind translator uses the product), but I wonder if higher quality voice might cause text-to-speech to become more commonly used by those who haven't previously considered the feature before.







October 2007

The Ghost in My FileVault

All men have fears.

Many fear those physical threats wired into our souls through millions of years of surviving this harsh world. Fears of heights, confinement, venomous creatures, darkness, or even the ultimate fear of becoming prey can paralyze the strongest and bravest of our civilization.

These are not my fears.

I climb, crawl, jump, battle, and explore this world; secure in my own skills. My fears are not earthly fears. My fears are not those of the natural world. This is a story of confronting my greatest terror, living to tell the tale, and wondering if the threat is really over.

The tale starts, as they always do, on a dark and stormy night.

It was the beginning of August and I had just arrived in Sydney, Australia to begin a two-week tour speaking on security issues throughout Australia and Asia. I was staying in a hotel overlooking Darling Harbor, one of the main tourist spots in the city. My room was on the top floor, with a large wall-sized window filled with an expansive view of the harbor and downtown Sydney. Australia is in the midst of a drought, but that evening the sky was filled with dark clouds glowing with the lights of the metropolis. I remember, in my innocence, thinking the view was beautiful, especially the strange glow where the city met the night. At least, that's what I thought caused the glow; now, I'm not so sure.

I was half-drugged from the combination of jet lag and the pill I took to help me sleep, but I remember noticing some oddness with my mail. Apple Mail was showing a large amount of spam

in my Inbox; strange, since Spam-Sieve normally catches nearly all of it. I didn't think much of it, or much of anything as the drugs and fatigue brought me down, and I drifted off to the restless sleep of the traveler.

The next morning I woke up, washed the sleep from my eyes, and settled in front of my MacBook Pro to catch up on email before heading off to meetings for the next few hours.

Something was wrong. Very wrong.

My Inbox was flooded with the evil detritus of the seductive false dreams offered by spam. I restarted Spam-Sieve, which returned an error telling me its corpus was corrupt.

"Reboot" the former Windows sysadmin in me commanded, and I restarted my Mac. I should have resisted that instinct, because with that one reboot I left the world as we know it, and entered a dark dimension of shadows that changed me forever.

The system rebooted normally and I logged in, but that's where sanity ended. I first noticed my Dock; no longer the small, customized list of my favorite applications, but a gargantuan beast taking up inches of my screen with the default applications of a neophyte. On the menu bar only half of my usual icons appeared, and the mighty Quicksilver was no longer among them.

I launched Mail, and was prompted to set up my first account. I launched Safari, and was greeted not by Penny Arcade (my home page of choice), but the default Apple News page. I frantically started clicking, but application after application had reset to the default settings of a newborn Mac. Worst of all, Parallels had reset itself and could no longer see the Windows

virtual machine I use to access everything at work.

I was on day two of a two week trip on the other side of the world. This was bad. Really bad.

I rebooted again, and again, and every time my system did something different. Sometimes settings stayed, sometimes they vanished, or some settings would stick while others disappeared. My menu bar rotated applications; I never knew what would work and what wouldn't after logging in. "New" large files seemed corrupt - any utilities I downloaded failed to open, and file attachments were all corrupt, yet most large files on the system before... the event... were still fine. I first thought "virus," but as a security expert I take rigorous precautions and the chances of an infection were very low. Only one thing could explain such unnatural behavior.

"Ghosts," I thought to myself, "why did it have to be ghosts?"

As a chill settled into my spine I shut the lid of the MacBook Pro and left for my meetings. Walking the streets of Sydney I could feel the evil emanating from my bag, casting a pall wherever I walked.

My meetings finished and I raced back to my hotel room. Lacking the chickens, goats, salt, or newts for a proper exorcism I had nothing to rely upon but my technical skills. I did try chanting while holding a chicken sandwich and plastic knife, but hotel security convinced me that course of action wouldn't bring the results I desired.

I cracked my knuckles, hunched over the keyboard, and began battling the evil head on. After more reboots and

some experimentation I realized that there was something wrong with my FileVault. Built into Mac OS X, FileVault - if you enable it - encrypts your home directory as a sparseimage file, protecting your data if someone steals your laptop. I've been a security professional for a long time, and last year decided it was time to follow my own advice and protect my laptop (you can read more about how I use FileVault on my blog).

Whatever this supernatural creature was, it was restricted to that encrypted prison. When I logged into my separate maintenance/backup account (you do have a secondary adminlevel account for troubleshooting, don't you?), everything behaved normally. It was only when logged in under my primary account, the encrypted one, that my computer was possessed. Normally when FileVault fails, it fails hard, corrupting the encrypted data and destroying your home directory. My case was something... different... and supported my theories of the supernatural. I could log in fine, and run most of my applications, but settings and data randomly corrupted and behavior varied from login to login. Facing two weeks with nearly no ability to get my normal work done, I was starting to get desperate. It was time to call in a warrior to fight the demons - the mighty DiskWarrior.

DiskWarrior is a popular Mac utility known for nearly miraculous saves of corrupt hard drives (see "Shootout at the Disk Repair Corral," 2007-09-07). Earlier, walking to my appointments, I saw a Mac store on the street. I packed up and sprinted over, grabbed a copy of DiskWarrior, and rushed back to my hotel. (And yes, I did pay for it first; troubleshooting is way harder when you're rotting in an Australian prison.)

All for naught. I booted off the Disk-Warrior CD and scanned my drive, but whatever haunted my system was more powerful than even this epic hero of saved drives.

I tried a few other desperate actions. At this point I realized there was some strange corruption to my FileVault image; not enough to keep me out or ruin my data, but enough to cause all this strange behavior. I tried to disable FileVault, but there wasn't enough space on my hard drive to decrypt all that data. I tried deleting or moving files to an external drive, but FileVault wouldn't recognize or recover the free space. I sacrificed file after file, including default applications, all in vain.

In the end I realized that the only way to defeat this demon would be to travel back in time and warn myself of the impending doom. Or restore from a backup. (You do have a recent and functional backup, don't you?) Since I lacked the proper tools in Australia to build a functioning time machine, I'd just have to wait until I returned home and could restore from the backup I made using SuperDuper before leaving.

For the rest of my trip I'm amazed that airport security never picked up on the danger hiding in my bag (okay, as a security expert it's not all that surprising). I traveled from Sydney to Perth, to Singapore, to Malaysia with nary a suspicious glance from any of the innocents surrounding me. Since none of my settings would save, I logged in using my backup (unencrypted) account and carried on as best I could (thank goodness for webmail).

Two weeks later I returned home and restored from my last backup, banishing the poltergeist from my Mac. Everything was back to normal, and I pulled what few files I changed on the trip from my external drive. Thinking back, I vaguely remember forcing a shutdown on the plane when logging off seemed to hang. I'm now certain that it was this forced shutoff (by holding the Power key for ten seconds) that created a dimensional hole between our world and the next, allowing the malevolent spirit to inhabit my drive. Either that

or it corrupted the encryption, but not enough to lock me out. It was only my backups, extra maintenance account, and some basic investigative skills that kept me from being completely crippled.

I also realized that I'd taken an incredible risk. A complete backup of my hard drive is important, and externally bootable (which is convenient), but if that corruption was also in my backup my files may have been banished to the nether-world forever. I thought I was safe, but I was taking far more risk than I realized. Coming home I realized I also need file-level backups of my data within the File-Vault, so I rushed to the Take Control site to consult Joe Kissell's "Take Control of Mac OS X Backups" on backup strategies. Soon we'll all have a Time Machine built into our Macs (and hopefully it will work well), but until then we'll have to take the extra steps ourselves to protect our data.

For now, life is normal. I'm back in my home town of Phoenix, Arizona without a cloud in the sky. I'm working again, but I have yet to banish the lingering fear that my beloved laptop is now a portal to a darker world.

[Rich Mogull been working in the security world for 17 or so years, and breaking computers (usually by accident) even longer. After about 10 years in physical security (mostly running large events/ concerts), he made the mistake of getting drunk in Silicon Valley and telling someone he "worked in security." Next morning he woke up with a job as an IT security consultant. That's not totally true, but it's far more amusing than his full biography. He currently works as an independent security consultant and writer through Securosis.com and previously spent seven years as an analyst with Gartner. Rich has also worked as a paramedic, done stints as a firefighter and with Rocky Mountain Rescue, and recently retired from ski patrol when he moved to sunny Arizona. He still dabbles in disaster medicine, when nature cooperates.]

German Laws Kill KisMAC, Threaten Privacy

The developers of the KisMAC Wi-Fi sniffing and cracking software have removed their code from distribution and halted their efforts, due to a change in German law that came into effect on 11-Aug-07 (article in German). KisMAC could be used for good or evil, but it was primarily a tool for monitoring and evaluating the security of Wi-Fi networks.

System administrators who used Macs were particularly fond of Kis-MAC. It was also a good way to demonstrate the utter failure of WEP (Wired Equivalent Privacy) encryption for Wi-Fi when trying to convince people to upgrade to WPA (Wi-Fi Protected Access), which actually works (see "Step on a WEP Crack, Break Your Network's Back," 2007-04-09).

KisMAC's developers reacted to a small set of changes to section 202 in the German Penal Code. These changes broadened the definition of unauthorized access, and, in section 202c, criminalized both the possession of passwords to such networks and any tools that facilitate extraction of passwords and such. Section 202b says either unauthorized access to a private network or obtaining the data or the wireless transmissions of a computer is illegal, unless the data is intended for you. The penalty is two years imprisonment - the lovely phrase Freiheitsstrafe or "freedom penalty" - or a monetary fine. (Unauthorized access and "data not specifically for you" are two overlapping parts - the one being access or interception, the other being the data itself.)

Section 202c describes punishment of a year in jail or fines if password or security codes to such networks are involved. It likens trafficking in passwords - selling, giving, receiving, etc. - to creating software that allows the extraction of passwords. There's no exemption in the law, as I read it with my rusty German, that allows for research or other mitigating factors.

Thus, KisMAC's ability to exist in Germany is legally invalidated, whether for the developers or those who use the software for any but very limited purposes. Because you give yourself permission to sniff your own network, you might be okay to use KisMAC in Germany, but the law seems to indicate that because infringing purposes are available, the software would be thoroughly outlawed even for in-house testing. If you inadvertently sniffed another network, too, you'd be in trouble even if in-house use were permitted.

These laws are part of a class of law found worldwide in which certain behavior is de facto illegal, regardless of any circumstances. The possession of child pornography, for instance, is so illegal in most of the world that even if you can prove you didn't obtain or view the pornography, you may have no defense against imprisonment. This law provides the same level of indefensibility. The KisMAC developers note that in Germany, possession of child pornography carries twice the jail penalty of this new law.

There's a further, broader set of changes to German law coming in 2008, too, which don't specifically deal with hacking, but which raise similar concerns. The potential new policy covering Vorratsdatenspeicherung - loosely: the retention of stored data - includes all mobile and fixed telephony and data transfers. It has an incredibly overarching effect in requiring firms to retain records about the origin, destination, and location of parties involved in calling, emailing, text messaging, and other activities. A demonstration against the law is scheduled for 22-Sep-07 in Berlin.

As of 06-Aug-07, according to Wikipedia's timeline of the matter, the developers say that a site in the Netherlands should be available "soon." The KisMAC site notes, "KisMAC will live on. Different people. Different country. Same 'threat' to national security." Wikipedia may be the best place to follow developments in KisMAC's future, as the article continues to be updated.







Amazon MP3 Takes on the iTunes Store

Amazon.com has launched a public beta of Amazon MP3, a digital music store that provides DRM-free downloads of over 2 million songs from 180,000 artists and 20,000 labels. In comparison, Apple says the iTunes Store now contains over 6 million songs.

According to Amazon's press release, most of Amazon MP3's songs are priced between \$0.89 and \$0.99, with more than 1 million songs in the current catalog available at \$0.89, a full \$0.40 less than Apple's iTunes Plus songs. Most albums in Amazon MP3 are priced between \$5.99 and \$9.99, again a bit cheaper than albums in the iTunes Store, which generally check in at \$9.99.

All songs in Amazon MP3 are encoded at 256 Kbps, which is comparable to iTunes Plus songs, although in theory, the iTunes Plus AAC format could provide better quality than the MP3 format used by Amazon. Because Amazon is using MP3 and avoiding DRM entirely, songs purchased from Amazon MP3 are playable on any device, including the iPhone and iPods, along with Macs, PCs, and music players from other manufacturers.

Individual tracks can be purchased directly from a Web page, but to buy an album, you must first download and install the Amazon MP3 Downloader, available for both Mac OS X and Windows (a 615K download for the Mac version). Reportedly, a Linux version is in the works.

In my testing, the Amazon MP3
Downloader worked acceptably, but
it was a distinctly clumsier experience
than purchasing from iTunes. Clicking a Buy button on the Amazon Web
site downloaded a document to my
Desktop. I believe the Amazon MP3
Downloader was supposed to open
it and download the actual song, but
I had to double-click the file manually, likely because Amazon wasn't

expecting that I'd be using a browser other than Safari (I generally rely on OmniWeb). Once opened in Amazon MP3 Downloader, the song was downloaded to an Amazon MP3 folder in the Music folder and then sent over to iTunes, which, at least for my setup, means that it was duplicated, since I keep my iTunes Music folder on a server for shared usage and copy music to that folder when adding it to my iTunes Library.

Songs I purchased were encoded at between 208 Kbps and 256 Kbps using variable bit-rate (VBR) encoding, and the free sample song was encoded at 280 Kbps VBR. Sound quality was certainly fine to my ears, though I'm no audio connoisseur. The metadata was complete and album artwork was either included or picked up automatically by iTunes.

Not Too Shabby — Amazon MP3 is the first online music store besides the iTunes Store that hasn't left me cold. Its advantages are very real:

- No DRM. No consumer likes DRM, and although Apple wouldn't comment when I asked them for statistics on how the DRM-free tracks from EMI have sold in comparison with the DRM-encumbered versions of the same tracks, Amazon has done the right thing by eliminating it across the board. Hopefully Amazon's move will give Apple some leverage with the music labels to make more DRMfree tracks available. On the other side of the equation, the labels may be trying to use Amazon MP3 to pressure Apple into allowing variable pricing, but considering how much lower Amazon's variable pricing is, I can't see Apple changing.
- iPod compatibility. Thanks to the lack of DRM, and in particular, Windows-specific DRM, songs purchased from Amazon MP3 will play on an iPod, something that has never been true for a mainstream online music

retailer (other than Apple) before. (And by "mainstream," I mean a retailer who is licensing music from major labels.)

- Low prices. I don't have a sense for how price-conscious the online music market really is, but with many tracks priced below even the cost of Apple's DRM-encumbered tracks, and albums priced even lower, I could see budget-driven consumers or those who buy a lot of music preferring to purchase from Amazon MP3 over the iTunes Store.
- 1-Click shopping. People do not like creating new accounts for shopping, but there's no question that some people shop from Amazon over other venues purely because it's such a known quantity after years of easy ordering. Ordering via Amazon MP3 isn't as easy as from the iTunes Store, but it's not far off.

I don't think Amazon MP3 will be putting the iTunes Store out of business by any stretch of the imagination. It's competitive, thanks to the lack of DRM, low prices, and ease of shopping, but it's clumsier than using iTunes, and everyone who has an iPod will be using iTunes anyway to sync music, so it's not as though Amazon can ever get as close to the iPod as Apple can. The good news is that by releasing an online music store that doesn't suck, Amazon has given Apple some real competition, and where there's competition, there's innovation.

Of course, the next question is if Amazon will translate these advantages in Amazon MP3 (no DRM, Mac-compatible, integrated with iTunes) to their Amazon Unbox video download service. Were that to happen, the iTunes Store would have significantly more competition.

Rumors and Reality

Around Apple

Apple has begun preparatory measures for significant announcements to take place during the last full week of October.

We're looking at any time between the 22nd and 27th of the month. Keep in mind that Apple has planned to release Mac OS X Leopard, which the company — after having delayed the software once — has promised for "October."

Historically, Apple has tapped the final Friday of the month to roll out its major operating system overhauls. For instance, it launched Mac OS X Tiger on the eve of Friday, April 29, 2005

• As a side note: Apple has updated the minimum system requirements for its next-generation Leopard operating system to exclude 800MHz PowerPC-based Macs.

The company has long stated in developer documentation that the software would require "an Intel processor or a PowerPC G4 (800MHz or faster) or G5 processor."

However, engineers for the company recently determined that Leopard installs on 800MHz PowerPC G4 systems ran "too slow." Support for those systems was subsequently pulled from the most recent pre-release copies of Leopard, which inform testers that the software "cannot be installed" on those computers.

Leopard will now require Macs with "an Intel processor or a PowerPC G4 (867 MHz or faster) or G5 processor." Other system requirements include a DVD drive, built-in FireWire, at least 512MB of RAM (additional recommended), and at least 9GB of hard disk space.

This change will exclude the 800MHz PowerBook G4 (Titanium), 800MHz PowerMac G4 (Quicksilver), 800MHz iMac G4, 800MHz iBook G4, and 800MHz eMac.

Convert your vinyl or tapes to digital: Ion has created two USB

digital: Ion has created two USB turntables that allow you to convert your old vinyl collection directly to CD or MP3 with included recording software. Features include:

- Plug & Play USB no drivers needed!
- Adjustable Anti-Skate control for increased stereo balancing
- 33 1/3 and 45 RPM
- Supports the recording of 78 RPM records through the included software
- 1/8" stereo line input; digitize music from cassettes or other sources

The turntables require Mac running OS9 or higher and one USB1.1 port or higher.



The iTTUSB05 (\$150) is aimed at users who have a traditional home stereo rack, who want to play albums while also digitizing albums. Ion Audio explained that the iTTUSB10 (\$250) uses a more "evolved" design that features a round edge and additional mechanical features like an S-shaped tone arm and tone arm lift lever; it also has an enhanced output to more easily switch between phono and line output.

DVD Wars: Paramount Pictures and DreamWorks Animation will release their next-generation DVD titles exclusively on HD DVD ahead of what they say could be the biggest holiday season ever for DVDs.

Paramount has sold titles in both the new high-definition formats — HD DVD and Blu-Ray — but settled exclusively on HD DVD after deciding it offered better quality, lower-priced players and lower manufacturing costs.

So far, most of the major Hollywood studios are selling Blu-Ray titles. Blu-Ray outsold HD DVD 2-to-1 in the United States in the first half of 2007. An estimated 3.7 million high-definition discs have been sold, overall, including 2.2 million in Blu-Ray and 1.5 million in HD DVD through July, according to Home Media Research.

Mash-ups are tools offered by Yahoo, Microsoft, and others that allow users to combine online information sources. These companies are creating systems that let ordinary people who've never been near a Java class create useful computer applications by combining, or "mashing up," different online information sources.

People with modest technical skills can tailor applications to their needs – while writing little or no code. For example, an employee at a chain of hardware stores creates a mash-up that combines inventory data, storm forecasts and the telephone numbers of branch managers. Then, when snow is on the way, the application sends text messages to the managers' cellphones, telling them how many shovels to order.

Yahoo's mash-up tool, Pipes, was introduced in February; no separate

software plug-ins are required to try the technology.

Using someone else's program on Pipes is a good way to get started. Copy their program and tweak it to work for you. There are thousands of mash-ups, created by Pipes users, that are displayed on the site. One program starts with messages people send one another when participating in Second Life, the virtual world. The messages are combined with a translation service, Babel Fish, and converted to the recipient's language, for example, English.

Microsoft's mash-up system, Popfly, was released in a test form in April. John Montgomery, a program manager on the Microsoft team building Popfly, and one of its originators, said his goal from the start was to build an entirely Web-based tool that ran on a browser, and was easy to use. "We wanted to make the programs so simple," he said, "that people could use them without writing a line of code."

Popfly's target audience is consumers, starting with the MySpace generation. "We want to give them a rich set of tools," he said, so that they can embed their favorite mash-ups on their Web pages. Popfly might eventually include advertising. "For now, though, it's more about getting people to try the platform technology," he said. People can sign up for invitations at www.popfly.com.

THE program from I.B.M., QEDWiki – the QED stands for quick and easily done – is aimed not at consumers, but at sales staff, accountants and others who need to mash up data from different sources to solve business problems.

Soon there will be a downloadable version of QEDWiki that companies can copy and use within their businesses, said Rod Smith, vice president for emerging Internet technologies at I.B.M.'s software group. For now, the program can be tried at http://services.alphaworks.ibm.com/qedwiki.

I.B.M. has posted a 10-minute tutorial on YouTube that takes viewers through QEDWiki.

Memory Technology: Stuart S. P. Parkin is working on a device that could increase chip data storage by 10 to 100 times. That means the iPod that today can hold up to 200 hours of video could store every single TV program broadcast during a week on 120 channels.

Mr. Parkin thinks he may be able to bring about another breakthrough that could increase the amount of data stored on a chip or a hard drive by a factor of a hundred.

Currently the flash storage chip business is the storage most in favor. Used as storage in digital cameras, cellphones and PCs, the commercially available flash drives with multiple memory chips store up to 64 gigabytes of data. Capacity is expected to reach about 50 gigabytes on a single chip in the next half-decade.

However, although it can read data quickly, it is very slow at storing it. That has led the industry on a frantic hunt for alternative storage technologies that might unseat flash.

Mr. Parkin's new approach, referred to as "racetrack memory," could outpace both solid-state flash memory chips as well as computer hard disks. His idea is to stand billions of ultrafine wire loops around the edge of a silicon chip – hence the name racetrack – and use electric current to slide infinitesimally small magnets up and down along each of the wires to be read and written as digital ones and zeros.

His research group is able to slide the tiny magnets along notched nanowires at speeds greater than 100 meters a second. Since the tiny magnetic domains have to travel only submolecular distances, it is possible to read and write magnetic regions with different polarization as quickly as a single nanosecond, or one billionth of a

second – far faster than existing storage technologies.

So far, the racetrack idea is far from shelves and it is very much still in Mr. Parkin's laboratory here. His track record, however, suggests that the storage industry might do well to take notice of the implications of his novel nanowire-based storage system in the not too distant future.

Printer Technology: Xerox introduced five printers, including the Phaser 8860 which features new solid-ink technology, saying the system puts the cost of color pages on par with that of black-and-white. The system promises to slash the cost of color printing for high-volume users willing to pay more initially for machines.

Solid ink uses wax ink sticks rather than the cartridges of powdered toner found in laser printers. The process works like that of a high-end offset press to create richer colors, the company says, and has significantly fewer disposable parts, which leads to lower maintenance costs. Xerox says the printers cut the cost of printing a color page to about 5 cents a page, a fraction of rival systems, which analysts peg at between 8 cents and 13 cents a page.

The Xerox printers are priced high. The strategy is similar to Eastman Kodak Co's consumer inkjet printers unveiled this year. Both represent a shift from the so-called razor/razor blade model — selling hardware at little or no profit to encourage sales of more profitable replacement ink and toner.

At \$2,500 to \$4,000, the Phaser 8860 is roughly \$1,000 more than other Xerox products with similar functions. The printers are definitely target to the high volume color users.

USB vs FireWire: Universal Serial Bus (USB) 3.0 is now being formulated by Intel and will transfer data at up to 4.8 gigabits per second (Gb/s). The

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Rumors and Reality

specification will be completed in the first half of 2008. That's ten times the current specification for USB2's maximum rate. The USB 3 protocol will be backwards compatible with USB 2, just as USB 2 was with version 1.1. USB 3 allows transfer over both copper and optical cables.

FireWire 400 and 800 have proven, in practice, to well exceed USB 2 transfer rates. With USB 3, typical transfer speeds are expected to exceed FireWire 800.

New FireWire specifications are in the works. The 3.2 Gigabit version of the FireWire standard is in the final stages for release in early 2008. The new version will use the same connectors and cabling as 1394b. This is targeted for consumer applications providing true whole-home networking and multifunction utility with built-in quality of service required for transporting

raw uncompressed video plus dozens of compressed HD video channels.

FireWire OHCI (Open Host Controller Interface, including USB, Compaq, OPTI, Apple, UHCI) providers have completed the transition from PCI to PCI Express, paving the way for an easy speed-up from today's FireWire 800 parts. The Trade Association is now reviewing applications for 10 Gigabit versions of 1394, which remains a key element on the road map in order to transport multiple uncompressed HD streams over a network.

Snake Oil Reinvented? There must be close to a gazzilion iPod accessories. Some are useful, some are ridiculous, and some can only be demoed in the privacy of your own home. One of the latest accessories to be introduced is Professor Bocelli's "Rock My Teeth" system. It claims to whiten your teeth.

The user places a whitening strip over the teeth and inserts a mouthphone over the teeth. The mouth phone is connected to your iPod. The Professor claims that "The louder the music to your teeth, the more whitening energy you provide to the hydrogen peroxide in your whitening strip to go deep into the stained teeth." Of course there is a side benefit: your teeth conduct sound, so you can actually hear the music while you're cleaning your teeth.



iPod is not included

The testimonials are worth checking out. For instance, Jason L. from Greenbrae, CA writes "I rock my teeth on my motorcycle. Not only does it give me white teeth and fresh breath it keeps the bugs out of my teeth!"

by Glenn Fleishman

Starbucks To Give Away 50 Million iTunes Songs

AS part of the Apple/Starbucks deal to enable the iTunes Wi-Fi Music Store within coffee shops across the United States, the coffeeselling giant said it would give away 1.5 million iTunes song cards each day from 02-Oct-07 to 07-Nov-07. The catch? The songs are specific titles from 37 artists, including Paul Mc-Cartney and Joni Mitchell, who have released albums directly through Starbucks. The company said Bob Dylan's "Joker Man" will be the first song given away.

At the iPod touch release on 05-Sep-07, Apple and Starbucks unveiled a partnership around the iTunes Wi-Fi Music Store, announced the same day (see "Apple Introduces iPod Touch, Wi-Fi iTunes Store, and New iPods," 2007-09-10). Starting 02-Oct-07, iPhone, iPod touch, and all iTunes users can use Starbucks's hotspot network - run by AT&T competitor T-Mobile - to purchase the current songs playing in a Starbucks and use the iTunes Wi-Fi Music Store. (Full Internet access over the network requires a fee or a subscription.)

Starbucks will also start selling "digital release cards" that enable purchasers to download a full album and bonus material from the iTunes Store. KT Tunstall, who performed at Apple's iPod announcement, and Eddie Vedder will have the first two

albums out - "Drastic Fantastic" for \$14.99, and the soundtrack for "Into the Wild" for \$11.99.

And in even more synergy, heaven help us all, Starbucks will start selling a special version of its stored-value card, an innovation that apparently helped boost revenue while reducing tips by keeping actual cash (and change) from trading hands. The so-called "limited-edition card" will offer two free iTunes downloads when registered via the Web, although it's not clear from early coverage whether those will be specific songs or a generic credit. Maybe we'll be able to tip our favorite baristas with song downloads in the future.

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Hazel 2.0.2 http://www.noodlesoft. com/hazel.php

Requires OS X 10.4 (Tiger) or above; Safari, Camino, Firefox or Flock; Spotlight must be enabled. Universal binary. \$21.95.

Hazel is your personal housekeeper, organizing and cleaning folders based on rules you define. Hazel can also manage your trash. Organize your files using a familiar rule interface. Filter on the file's name, type, date, the site or email address it came from and more. And do more than just file. You can set color labels, Spotlight keywords and comments and even archive files. Hazel also cleans, sporting options to clean out incomplete and duplicate downloads. In addition, Hazel can manage your Trash for you, relieving you of having to empty it yourself. All this is done automatically in the background allowing you to focus on your real work.

Create rules to automatically keep your files organized

Hazel watches whatever folders you tell it to, automatically organizing your files according to the rules you create. It features a rule interface similar to that of Apple Mail so you should feel right at home. Have Hazel move files around based on name, date, type, what site/email address it came from (Safari and Mail only) and much more. Automatically put your music in your Music folder, movies in Movies. Keep your downloads off the desktop and put them where they are supposed to be.

More than just filing

Hazel can open, archive, set color labels and add Spotlight comments. And in Hazel 2, you can now have

Hazel rename your files or sort them into subfolders based on name, date or whatever combination of attributes you choose.

App Sweep

When you throw away applications, they can leave behind support files that never get cleaned up. With Hazel 2's App Sweep, Hazel will detect when you throw applications away, search for its support files and offer to throw those away as well. Uninstalling applications is integrated with your Trash so you don't even have to think about it.

iLife Support

Hazel features new actions to import your files into iPhoto or iTunes. Keep your media in line. Add to your library or to a specific playlist or photo album.

Spotlight Integration

Improved Spotlight integration allows you to use any Spotlight attribute in your rules. Filter files based on Spotlight attributes or use them in conjunction with the new renaming and sorting actions. Sort your photos by aperture or shutter speed or rename your music files with artist, album and year. Make your metadata work for you.

Hazel cleans as well

Hazel has options to clean out those pesky unneeded files that clutter your folders, getting rid of incomplete and duplicate downloads for you. And, of course, you can set up whatever rules you want to automatically throw files away.

Never take out the trash again

You can have Hazel manage your Trash. Select from different options to keep your Trash in check. And for extra security, Hazel can also shred files like Finder's "Secure Empty Trash" option.

Extend, Customize, Integrate

Hazel's rules can trigger Automator workflows, AppleScripts and shell scripts. Hazel will run whatever you throw at it, making it easy for you to integrate into your workflow.

Work undisturbed

Hazel works quietly in the background allowing you to focus on your real tasks. Just set up your rules via a System Preferences pane and let Hazel do its job. Hazel tries not to hog up resources. You won't notice it's there but you'll notice when it's gone.

Or let Hazel be chatty

Hazel 2 now supports Growl. Receive notifications on your Desktop about what Hazel is doing. Even create your own custom notification messages.

Select files based on:

- Name
- Extension
- Date Added
- Date Created
- Date Last Opened
- Date Last Modified
- Date Last Matched
- Size
- Source URL/Address
- Kind
- Color Label
- Keywords
- Comment
- Contents
- Any Spotlight attribute

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And then

- Move file
- Copy file
- Set color label
- Add keywords
- Add comment
- Archive file
- Unarchive file
- Rename file
- Sort into subfolder
- Open file
- Import into iTunes
- Import into iPhoto
- Run AppleScript
- Run Automator workflow
- Run shell script
- Run rules on folder contents
- Send Growl notification

Manage the Trash

Hazel can automatically delete files in the Trash based on age or set a size limit, with the option to delete securely (shred).

Apple Updates

Some comments on September's EFI (Extensible Fimware Interface - Intel, MS) updates.

MacFixit is reporting some issues that are worth considering before attempting to apply the update, which applies to Intel Macs only.

Installing the EFI update

First, some recent MacBook Pros probably don't need latest EFI firmware update. It seems that any machines with firmware number have numbers starting with "MBP31" are exempt.

Second, check your machine's partition scheme and disconnect your peripherals. Apple uses two partition schemes for Macintosh computer disks: the earlier Apple partition scheme, which is used for disks that will boot up a PowerPC machine, and

the GUID partition scheme, which is used for disks that will boot up an Intel machine. Fortunately or unfortunately, depending upon how you look at it, a PPC machine cannot boot up from a GUID-partitioned disk, but an Intel machine can boot up from an Apple partition scheme disk.

If you get strange messages and are unable to apply the EFI update, check out the article at http://docs.info.apple.com/article.
httml?path=Mac/10.4/en/mh2315.
httml. It tells how to determine which partition scheme you have and how to fix it if you have the earlier Apple partition scheme. (Hint: it involves erasing all of your data.)

Effect of the update

Many readers are reporting significant slowing during data transfer, especially transfers involving USB devices. Booting the computers is also taking longer.

iWeb 2.0.2 09/27/2007

System Requirements

- OS X 10.4.9 or later
- iWeb 2
- iLife Support 8.1

This update to iWeb addresses issues with upgrading iWeb 1.x websites, and fixes some common publishing problems, and supports general compatibility issues.

Note

In order to install this update you will need to download the iLife Support 8.1 update first. The iLife update supports system software components used by all iLife application, improves overall stability, addresses a number of other minor issues and supports general compatibility issues.

Keynote 4.0.1 09/27/2007

System Requirements

- OS X 10.4.10

This update primarily addresses issues with builds and performance.

Pages 3.0.1 09/27/2007

System Requirements

- OS X 10.4.10

This update primarily addresses issues with change tracking and performance.

Numbers 1.0.1 09/27/2007

System Requirements

- OS X 10.4.10

This update primarily addresses issues with tables and performance.

Firmware Restoration CD 1.4 09/27/2007

System Requirements

- Intel-based Macintosh computer

The Firmware Restoration CD can restore the firmware of an Intel-based Macintosh computer.

Note: Restoring your firmware will reset some of your computer's preferences to defaults.

You can only use this to restore the firmware after an interrupted or unsuccessful update. If your computer is already in this state, you'll need to download the software and create the CD on another Macintosh computer, or you can take your computer to an Apple Store or Apple Authorized Service Provider to restore your firmware. This CD can be created on either a PowerPC- or Intel-based Mac, but only works with Intel-based Macs.

Note: This CD cannot be used to return an Intel-based Macintosh computer's firmware to a previous version if a successful update has already been performed.

iMac EFI Firmware Update 1.2 09/27/2007

System Requirements

- OS X 10.4.10 or later
- iMac (Late 2006)

This update improves the performance and reliability of Intel Core 2 Duo processors and fixes issues with Boot Camp for iMac computers.

Mac Pro EFI Firmware Update 1.2 09/27/2007

System Requirements

- OS X 10.4.10 or later
- Mac Pro
- Mac Pro (8-core)

This EFI Firmware Update fixes several fan behavior and Boot Camp issues on Mac Pro computers.

MacBook EFI Firmware Update 1.1 09/27/2007

System Requirements

- OS X 10.4.10 or later
- MacBook (Late 2006)
- MacBook (Mid 2007)

This update improves the performance and reliability of Intel Core 2 Duo processors and fixes issues with Boot Camp for MacBook computers.

MacBook Pro EFI Firmware Update 1.4

09/27/2007

System Requirements

- OS X 10.4.10 or later
- MacBook Pro (Core 2 Duo)

This update improves the performance and reliability of Intel Core 2 Duo processors and fixes issues with Boot Camp for MacBook Pro computers.

GarageBand 4.1 09/26/2007

System Requirements

- OS X 10.4.9 or later
- GarageBand 4
- iLife Support 8.1

This update addresses isolated graphic display issues, compatibility with 3rd party audio software, fixes minor problems with Magic GarageBand, and supports general compatibility issues.

Note

In order to install this update you will need to download the iLife Support 8.1 update first. The iLife update supports system software components used by all iLife application, improves overall stability, addresses a number of other minor issues and supports general compatibility issues.

iMovie 7.1 09/26/2007

System Requirements

- OS X 10.4.9 or later
- iMovie 7.0
- iLife Support 8.1

This update addresses several areas including video and audio editing capabilities, and performance associated with opening and switching iMovie Events and Projects. This update also supports general compatibility issues, improves overall stability, and addresses a number of other minor issues.

iMovie 7.1 features include:

- Multiple Clip Selection
- Fine Tuning
- Still Frame Creation
- Frame-by-Frame trimming
- Audio Ducking level control
- Manual Audio Fades
- Performance Improvements
- Set Duration for Transitions and Stills
- Show Current Playhead Time

Note

In order to install this update you will need to download the iLife Support 8.1 update first. The iLife update supports system software components used by all iLife application, improves overall stability, addresses a number of other minor issues and supports general compatibility issues.

iPhoto 7.1 09/26/2007

System Requirements

- OS X 10.4.9 or later
- iPhoto 7
- iLife Support 8.1

This update addresses issues encountered when moving photos between Events, plus new greeting card themes, including holiday card designs. It also supports general compatibility issues, improves overall stability, and addresses a number of other minor issues.

Note

In order to install this update you will need to download the iLife Support 8.1 update first. The iLife update supports system software components

used by all iLife application, improves overall stability, addresses a number of other minor issues and supports general compatibility issues.

iDVD 7.0.1 09/26/2007

System Requirements

- OS X 10.4.9 or later
- iDVD7
- iLife Support 8.1

This update improves overall stability, supports general compatibility issues, and addresses a number of other minor issues.

Note

In order to install this update you will need to download the iLife Support 8.1 update first. The iLife update supports system software components used by all iLife application, improves overall stability, addresses a number of other minor issues and supports general compatibility issues.

iLife Support 8.1 09/26/2007

System Requirements

- OS X 10.4.9 or later
- iLife '08

This update supports system software components shared by all iLife '08 applications, improves overall stability, addresses a number of other minor issues, and supports general compatibility issues. It is recommended for all users of iLife '08.

MacBook, MacBook Pro Software Update 1.0 09/24/2007

System Requirements

- OS X 10.4.9 or later
- MacBook (Mid 2007)
- MacBook Pro (2.2/2.4 GHz)

This update enables file system journaling on MacBook and MacBook Pro notebook computers. Some MacBook and MacBook Pro systems were shipped with file system journaling turned off. Journaling is recommended on all Mac computers as a preventative measure against file corruption.

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MainStage 1.0.1 09/20/2007

System Requirements

- OS X 10.4.9 or later

Part of Logic Studio, and built for live performance, MainStage lets keyboardists, guitarists, and other musicians perform with software instruments and effects through a full-screen interface designed specifically for the stage.

MainStage 1.0.1 contains several updates, including:

- Improves stability
- Addresses minor usability issues
- Adds options for saving parameter values when switching patches
- This software is recommended for all users of MainStage 1.0

iTunes 7.4.2 for Mac 09/17/2007

System Requirements

- OS X 10.3.9
- OS X 10.4.7 or later

iTunes 7.4.2 addresses an issue with creating ringtones using iTunes Plus song purchases and includes bug fixes to improve stability and performance.

iMac Software Update 1.1 09/13/2007

System Requirements

- OS X 10.4.10
- iMac (Mid 2007)

This update provides important bug fixes and is recommended for 20-inch and 24-inch iMac models with 2.0, 2.4, or 2.8GHz processors.

Compatibility Update for Quick-Time 7.2 09/11/2007

System Requirements

- OS X 10.3.9
- OS X 10.4.9 or later
- OuickTime 7.2

This update delivers increased compatibility with iLife.

Keyboard Software Update 1.2 09/11/2007

System Requirements

- OS X 10.4.10 or later

Install this software to take advantage of your aluminum Apple Keyboard's special features.

Pro Application Support 4.0.2 09/06/2007

System Requirements

- OS X 10.4 or later

This update addresses issues with keyboard interface reliability for Apple's professional applications and

Recent Updates to our Library

This is a list of all of our software library programs that have been added or upgraded in the last three months.

We especially recommend Google Earth, the program that displays a remarkable, interactive view of the earth. As of version 4.2, it has added two features that are definitely worth mentioning.

The first is complete flight simulator. Currently, two jets are available (F16 and SR22), and also a short list of airports. Initially the feature is hidden. The first time you invoke the simulator, open Google Earth, and then type Command-Option-A. A dialog will appear, asking you to pick your airplane, airport, and a few other things.

Once you've entered the keyboard sequence, you can invoke the flight simulator via the Tools > Enter Flight Simulator menu item. This entry appear only after you invoke the simulator once via the keyboard.

If you have used flight simulators before, enjoy. If not, you should probably invest in a joystick. The flying is realistic (if that word can be applied to a simulator). For me, getting off the ground is almost beyond my capacity.

My landings tend to be very quick and abrupt.

The second feature is the Sky. Turn on the Sky by navigating to View > Switch to Sky or by clicking on the Sky button (the little one with a picture of a ringed planet on it.) Go to http://earth.google.com/sky/skyedu.html for a tutorial.

Alarm Clock Pro 8.1.2

http://www.koingosw.com/products/alarm_clock_pro.shtml
Requires OS 10.3 or later. Universal
Binary. \$19.95 Three different clocks
can be displayed on your desktop.
Multiple alarms can be set. A 'Perpetual' option allows the user to set
alarms for specific times and dates in
the future. A 'Timer' option will beep
every umpteen minutes, depending
upon your selection. It includes a
stopwatch and a calendar.

Border 1.5b3

http://homepage.ntlworld.com/b.hilken/pages/Software.html
Requires OS X 10.2 or later. £15.
Border is a simple application for drawing decorative borders and frames. Border includes more than 170 different patterns which can be adjusted in various ways to fit round anything. Ideal for webpages, posters, flyers, invitations, coupons, tickets, advertisements, cards, etc.

Camino 1.5.1

http://caminobrowser.org/ Requires OS X 10.3 or later. Universal Binary. Camino is a browser for Mac OS X that has a Cocoa user interface, and embeds the Gecko layout engine. It is intended to be a simple, small and fast browser for Mac OS X. Camino is still in the beta stage of its development. It is stable enough to use day-to-day, but you may still encounter bugs.

Default Folder X 3.0.6

http://www.stclairsoft.com/Main/products.html

Requires OS X 10.3. Universal Binary. Default Folder X improves the Open and Save dialogs in Mac OS X. Its hierarchical menus, multiple sets of favorites, easily accessible lists of

recently used folders, integration with the Finder, and system-wide menu for accessing frequently used files and folders save you time and frustration.

Diet Sleuth 5.0.0

http://www.blackcatsystems.com/ Requires OS X. 10.2. \$34.99. Diet Sleuth is a nutritional database and personal health logbook. Diet Sleuth allows you to keep track of what foods you eat each day and their nutritional value. For each day, you select the foods you have eaten and the number of servings of each. Diet Sleuth will automatically calculate your caloric intake, fat grams, carbohydrates, fiber, protein, cholesterol, sodium, potassium, and calcium.

Dragster 1.03

www.ambrosiasw.com/utilities/dragster/

Require OS X 10.4 or later. Universal Binary. \$19.00. Dragster is an incredibly useful application that takes the drag out of file transfers. Just drag and drop files or folders on Dragster's icon in the Dock, and away they go! Dragster can send files via email, upload them to remote servers, copy them to your iDisk, or copy/move files anywhere on your local drives.

Firefox 2.0.0.6

http://www.mozilla.com/firefox/ Requires OS X 10.2 and later. Firefox is an award winning preview of next generation browsing technology from mozilla.org. Firefox empowers you to accomplish your online activities faster, more safely and efficiently than any other browser. Built with Tab browsing, popup blocking and a number of other seamless innovations.

Google Earth 4.2.180

http://earth.google.com/ Requires OS X 10.4.0 or higher and an internet connection, preferably high speed. An interactive map of the world with many overlays that provide additional data.

GraphicConverter X 6.0

http://www.lemkesoft.com/en/index.htm

Requires OS X 10.4.4 or higher. Universal Binary. \$3.95/\$19.95 upgrade.

Converts graphics to and from a variety of formats.

iVolume 2.5.1

http://www.mani.de/en/software/macosx/ivolume/index.html
Requires OS X 10.2 (Jaguar) or higher and iTunes 4.0 or higher. Universal Binary. \$15. With iVolume you can set all your iTunes songs to the same volume level.

LimeWire X 4.14.8

http://www.limewire.com/ Requires OS X 10.4. LimeWire is a software package which enables individuals to search for and share computer files with anyone on the internet.

Macaroni 2.0.8

http://www.atomicbird.com/ Requires OS 10.2 or higher. Universal Binary. \$9.99. Macaroni is a tool which handles regular maintenance for Mac OS X, including the Mac OS X repair privileges process as well as Unix-style maintenance

OnyX 1.8.2

http://www.titanium.free.fr/pgs/english.html

Requires OS X 10.4. or greater. Universal Binary. DonationWare. OnyX is a utility of maintenance, of optimization and personalization for Mac OS X. It also makes it possible to configure certain hidden parameters of Finder, Dock, Safari, to remove a certain number of files and folders that become cumbersome, preview the different logs and CrashReporter, and more...

Pac the Man X 1.0.8

http://www.mcsebi.com/ Requires OS X 3. Universal Binary. Free. Pac the Man is a simple Pacman clone for the Mac. It has nice graphics close to the original ones and good music. The gameplay is equal to the original: Escape the ghosts and eat the pellets.

PageSender 4.0.3

http://www.smileonmymac.com/ pagesender/download.html Requires OS X 10.1.3 or higher. Universal Binary. \$39.95. Send faxes and E-mails directly from the print dialog.

Postage \$aver 8.2.3

http://savepostage.com/psinfo.html Requires Classic or OS X. \$25. Postage \$aver sorts one or more data files according to U.S. postal service (USPS) requirements for third class bulk mail. Postage \$aver produces a complete report showing the composition of all mail packages and mail sacks, and the piece counts and postage totals necessary for completing post office bulk mailing statements. Postage \$aver can also create an output file containing sort keys by sack and package, along with postal endorsement lines for printing on address labels or envelopes.

Psst 2.1

http://www.satsumac.com/Psst.php Requires OS X 10.4 or higher. Universal binary. DonationWare. Psst is an application that lets you adjust/mute the volume of your Mac's startup chime.

Smart Scroll X 2.6

http://www.marcmoini.com/ Requires OS X 10.3.9 or later. Universal Binary. \$19. Smart Scroll X brings new scrolling options and enhancements to Mac OS X: a "hand" tool to easily move any window's contents; Scroll Keys - fast and dependable scrolling, without reaching for the mouse; FileMaker Pro and Apple-Works live scrolling, scroll wheel support, and more.

Snapz Pro X 2.1.0

http://www.ambrosiasw.com/utilities/snapzprox/

Requires OS X 10.9 or later. Universal Binary. \$29. Snapz Pro X is a utility that lets you grab virtually anything you see on your Mac's screen and immediately transform it into a usable picture file or QuickTime movie.

SndSampler 5.9.5

http://www.sndsampler.com/ Requires OS X 10.1.2. \$39.99. Snd-Sampler is a sophisticated recording and editing program.

SOHO Notes 6.3

http://chronos.iserver.net/ Requires OS X 10.4.9 or higher. \$39.99. Universal Binary SOHO Notes is a Continued on page 18

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digital note-taking application and the official successor to StickyBrain. Use it to capture, organize, and share all of your personal and workgroup information. It can store rich text, PDF's, images, files, movies, audio, bookmarks, and web archives. Synchronize notes between multiple computers, iPod's, and Palm handhelds.

StartupSound.PrefPane 11b1

http://www5e.biglobe.ne.jp/ ~arcana/StartupSound/index. en.html Requires OS X 10.4 or higher. PowerPC processor. FreeWare.StartupSound. prefPane is software which controls the volume of the startup sound of your Macintosh computer. It gets installed in System Preferences where the volume can be adjusted.

Synk Standard 6.1.1

http://www.decimus.net/ Requires OS X 10.4 or later. Universal Binary. \$35. Synchronize and backup files.

Tidy Up! 1.2.9

http://www.hyperbolicsoftware. com/TidyUp.html Requires OS X 10.3.9 and later. Universal Binary. \$30. Tidy Up! (Doublet Scan) is a utility for identifying all the duplicate files in your hard disks.

UniSudoku 1.7

http://www.unisudoku.com/ Requires OS X 10.3.9 or higher, Universal Binary. \$15. UniSudoku allows you to play the popular game of Sudoku on your Mac. Enjoy the best aspects of the pencil and paper puzzle with all the advantages of playing on your computer.

VueScan 8.4.34

http://www.hamrick.com/vsm.html Requires OS X 10.3.9. Universal Binary. \$39.95. VueScan is an inexpensive program that works with most scanners to produce high-quality scans that have excellent color fidelity.

xBack 3.7.5

http://www.gideonsoftworks.com/ Requires OS X 10.2 or later. Universal Binary. \$10. xBack is a utility that allows you replace your desktop picture with a screen saver. With xBack, you can bring your desktop to life.

By Christopher Breen

Mac 911 Solutions to your most vexing Mac problems

Converting unprotected DVDs

Q: Over the past 18 months, I've taken about 15 hours of video of my baby. I loaded the videos into Apple's iMovie and then burned DVDs in iDVD. (I didn't have the hard-drive space to keep the videos on my Mac.) Now I want to make a highlights video — but when I load the DVDs, I can't find the original files. What do you suggest? — Carrie Roberts

A: The data you need is contained in each DVD's Video_TS folder. However, iMovie can't read or edit the VOB (video object) files within, which hold your precious video. You need a different application to turn those files into something editable.

For this job, try Squared 5's handy and always free MPEG Streamclip 1.8.

With the help of Apple's \$20 Quick-Time MPEG-2 Playback Component, it can convert those VOB files into something you can edit in iMovie (see "Extract Unprotected Video"). I recommend opening MPEG Streamclip, choosing File: Export To DV, and then selecting NTSC, 720 x 480, 29.97fps from the Standard pop-up menu. The resulting file is huge, but it maintains the quality of the original footage.

If you're willing to spend some money for greater ease of use, you'll want to check out two programs. The first is DVDxDV's \$25 DVDxDV 1 (). With it, you can extract movies from a Video_TS folder or individual VOB files and save them in any QuickTime-supported format.

Likewise, Miraizon's \$60 Cinematize 2 () lets you export files in a variety of formats from a Video_TS folder, though it can't extract data from individual VOB files. In addition, it breaks movie files into "scenes," defined by areas of black in your movies. Neither utility requires that you have the MPEG-2 Playback Component installed.

Diagnosing the Apple TV

Q: I'm not sure my Apple TV is working properly. It's slow to respond to commands, and sometimes it can't "see" the Mac from which I want to stream movies. Is there some way to check whether it's working properly? — Matt Graham

A: Hold down the menu and minus (-) buttons on the Apple Remote until

the Apple TV flashes a yellow light. It will eventually restart and display a Language screen. Select the language you wish to use, and press the play/pause button.

You'll see an Apple TV Recover screen, which lists three options: Restart, Run Diagnostics, and Factory Restore. Select Run Diagnostics and press play/pause. You'll see the familiar spinning-gear icon along with a message that reads "Running Diagnostics" until the test is complete. At that point, you hope to see the message "Your Apple TV is working correctly." If so, click on Done to return to the Apple TV Recover screen, select Restart, and press the play/pause button to restart the Apple TV. If you see an error message instead, it's time to return the Apple TV to Apple for servicing.

If the Run Diagnostics test is successful but you still have problems, make sure that your Mac is awake and that iTunes isn't locked up or unresponsive. Also check to see that you've got a decent network signal in the Apple TV's Settings screen — two bars or more. You can determine this signal's strength by looking at the Settings: Network menu on your Apple TV. (If the signal is too weak — and you can't fix it by, say, moving your Apple TV or wireless router to a better location — try using a different network connection such as wired Ethernet.)

If you've got a strong signal but the Apple TV remains hesitant to play music and videos, you can try restoring it to the original factory settings. Choose Factory Restore from the Apple TV Recover screen. Doing so wipes out your network settings and removes any media you've synced to the Apple TV.

AirDisk and Apple's Backup

Q: Can I use Apple's Backup in conjunction with a USB drive attached to a new Air-Port Extreme Base Station? — Calvin Johnson

A: You can. And there's a good reason to do so if you have a bunch of Macs: using this scheme, you can back them all up to a single drive, because it will be available to any Macs you have on your network.

To start, hook up the external USB drive to the AirPort Extreme Base Station's USB port. Then verify that the Base Station recognizes it by launching AirPort Utility (in / Applications/ Utilities), opening the configuration profile for the Base Station, and clicking on the Disks tab. You should see your drive listed there (see "Wireless Backups").

Back in the Finder, choose Go: Connect To Server. Click on Browse in the resulting Connect To Server window, find the name of your Base Station, select it, and click on Connect. Select the drive in the window that appears and click on OK. Then enter your AirPort password to mount the drive. All you need to do after that is launch Apple's Backup () and choose that networked drive as the destination for your backup plan. (If you don't have Backup now, you can get it by subscribing to Apple's .Mac service.)

Although this method is generally convenient, it does have a significant drawback. It's slow — really slow. I found that backing up 50GB of data from my MacBook Pro took most of the day over a wireless 802.11n network. If you're backing up just one computer, it makes a lot more sense to connect the backup drive directly to that computer.

Also, be aware that Backup can't mount a drive attached to an AirPort Extreme Base Station. You need to make sure the drive is mounted before you begin the backup.

iSight alternatives

Q: Now that all new Macs come with a Web cam built in, Apple has discontinued the iSight. But that's a problem for me and my older Mac. There don't seem to be any Mac-friendly Web cams out there

— in other words, ones that "just work" without additional software. Any suggestions? — via the Internet

A: The simplest solution is to find an old iSight camera. Some non-Apple retail stores have a few in stock. You can also find iSights on eBay (but be prepared to pay a premium).

If that doesn't pan out, you'll find that tracking down a Web cam that works with the Mac is easier now, thanks to the UVC (USB Video Class) standard — an open standard for video devices. Apple added support for UVC Web cams with Mac OS X 10.4.9.

Just plug a UVC-compliant camera into a Mac running this operating system (or a later one), and it should work. (See a list of compatible Web cams.)

If you're running an earlier version of Mac OS and therefore can't take advantage of a UVC Web cam, try Ecamm Network's \$10 miChatUSB-Cam 2.2.1. This software allows Macs to use an even wider variety of third-party Web cams. It requires OS X 10.3 or later and is Universal (in other words, you can use it on either an Intel Mac or a PowerPC Mac).

But you might not need to buy anything at all. If you have an old FireWire camcorder with a built-in microphone, you can use it as a Web cam. Just attach it to a free FireWire port and switch it into camera mode. iChat AV should recognize it as a viable source. Read the camera's manual to learn how to keep it switched on — most cameras will turn off after a period of time by default. For example, you may need to turn off an energy-saving setting, remove the tape from the camera, or switch the camera into its single-image capture mode.

Bug: Zinio Reader rejection

If you use the Zinio reader to subscribe to digital versions of magazines, you may find that it

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Mac 911

refuses to open or download your issues after you transfer your data to a new Mac or restore a hard drive. To fix this, delete the Zinio application and a trio of files located in your user folder/Library/Preferences: Content-Guard, com.zinio.reader.plist, and Zinio.plist. Be sure to empty the Trash after putting the files there. Finally, reinstall Zinio Reader, and the application should once again see you as a valid subscriber.

Bug: HelpMate won't help Mac

HelpMate 2.0 (free), from Most Training & Consulting, is a top-notch utility offering dozens of performance-enhancing and troubleshooting features. But the program can't help much if it refuses to open — which can happen after you update to a new version. Upon launching, the program may display a "preference conflict detected"

error message that asks whether you want to reset the preferences, but clicking on Yes here doesn't seem to solve the problem. Instead, go to your user folder/ Library/Preferences and remove the com.most.mhm.plist file yourself. The program should now launch successfully.

Bug: Google Desktop slowdown

When it comes to helping you search your computer for just the right file, the free Google Desktop () is a worthy competitor to Mac OS X's Spotlight. But in some cases, its excessive CPU usage can slow a Mac's performance to a crawl. If you're having that problem, use the Google Updater application (in / Applications) to uninstall the software. You'll have to wait for Google to release a fix before you reinstall it.

Fix: QuickTime 7.1.6 hassles

Updating to QuickTime 7.1.6 may break the ability of the free Microsoft Windows Media Components for QuickTime (also known as the Flip4Mac WMV Player) to play movies in a Web browser. Updating to the most recent version (2.1.1 or later) should fix this). Even after updating, you may need to reboot your Mac before movies will play.

The same QuickTime update can also break Safari's ability to play Flash content. If you encounter that problem, the workaround is to open the QuickTime preference pane, go to the Advanced tab, and click on MIME Settings. Find Miscellaneous in the list, and click on the disclosure triangle next to it to reveal the Flash Media subitem. If it's enabled, click on the check box to deselect it. — Ted Landau

[Senior Editor Christopher Breen is the author of Secrets of the iPod and iTunes, fifth edition, and The iPod and iTunes Pocket Guide (both Peachpit Press, 2005).

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