

printout

Keystone MacCentral Macintosh Users Group ♦ <http://www.keystonemac.com>

iLife in Your Life

by Linda J. Cober

If you have been reading my President's Corner and thinking that today's students don't know how lucky they are to have professional trainers available (for free!) to teach them all about great new applications such as iLife, our October 17 meeting is for you! This is your opportunity to go back to school and have presenters Anne Reardon and Cathleen Ketterer teach you just as they do West Shore School District students and teachers. Anne, formerly a classroom teacher and the first Keystone Educator from West Shore (and one of my former students!) is now working out of the technology department at WSSD. Anne is an expert at iMovie and will enjoy sharing her expertise with you. She said that she normally has to concentrate on curricular uses for iMovie so is looking forward to exploring other uses with you.

Cathleen is a music teacher, so her expertise is with GarageBand. She uses this with her music students and will have fun showing you how to create music with this versatile application. Bring your laptops and play along! Put the two applications of iMovie and GarageBand together with two great presenters and you have iLife and a terrific October 17 KeyMac meeting! Hope to see you there! 🍏

Meet us at

Gannett Fleming

Gannett West Building
209 Senate Ave ♦ Camp Hill

Tuesday, October 17, 2006, 6:30 p.m.

Attendance is free and open to all interested persons.

Contents

iLife in Your Life by Linda J. Cober	1
President's Corner by Linda J. Cober	3
Keystone MacCentral Minutes by Gary Brandt	4 - 5
And Another Thing The Mac Can Do That Windows Can't: By Leland Scott	5 - 7
Boot Camp by Maria O. Arguello	8
Backup for Disaster Recovery by Fred Showker	9 - 10
Mac OS X 10.4.8 Fixes Numerous Issues by Jeff Carlson	10
October Software Review by Tim Sullivan	11- 14
Hardware Firewalls: by Kale Feelhaver	15 -16
Rumors and Reality by Tim Sullivan	16
Mac 911 By Christopher Breen	17 - 19

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 © 2006, Keystone MacCentral, 305 Somerset Drive, Shiresmanstown, PA 17011.

Nonprofit user groups may reproduce articles from the Printout only if the copyright notice is included, the articles have not been edited, are clearly attributed to the original author and to the Keystone MacCentral Printout, and a copy of the publication is mailed to the editor of this newsletter.

The opinions, statements, positions, and views stated herein are those of the author(s) or publisher and are not intended to be the opinions, statements, positions, or views of Apple Computer, Inc.

Throughout this publication, trademarked names are used. Rather than include a 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.

Board of Directors

President

Linda J Cober

Vice President

Tom Owad

Recorder

Gary Brandt

Treasurer

Jim Carey

Program Director

Gary Brandt

Membership Chair

Eric Adams

Correspondence Secretary

Abigail Schearer

Newsletter Editor

Tim Sullivan

Industry Liaison

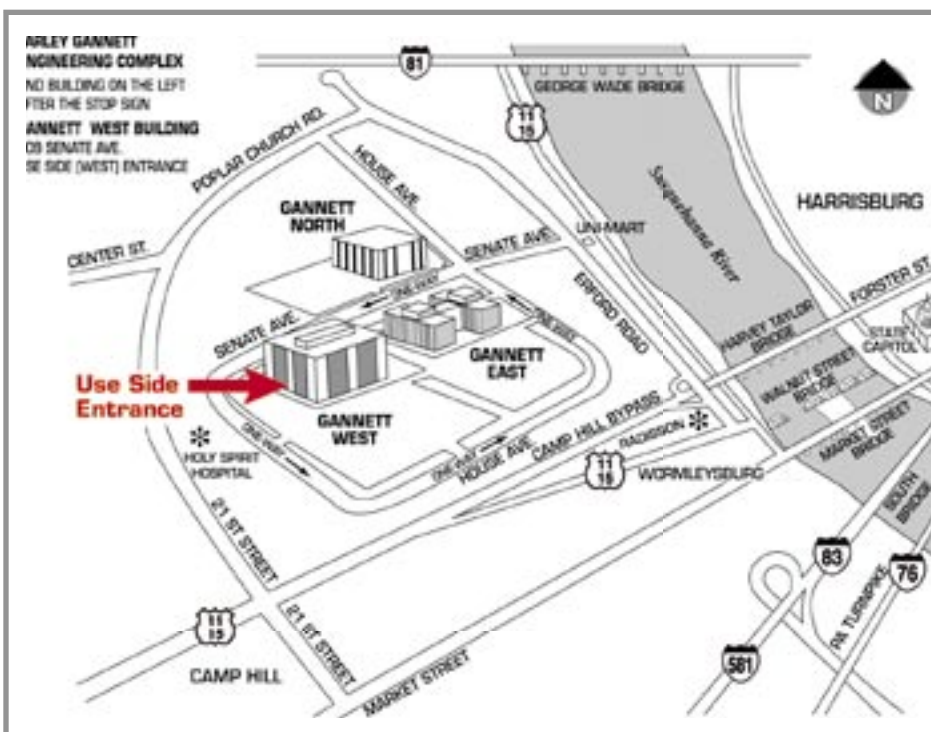
Wendy Adams

Web Master

Linda Smith

Librarian

Tim Sullivan



Keystone MacCentral Essentials

Meeting Place

Gannett West
209 Senate Avenue
Camp Hill

Web Site

<http://www.keystonemac.com>

Mailing Address

305 Somerset Drive
Shiresmanstown, PA 17011

by Linda J. Cober

President's Corner

WooooHooooo! We (WSSD) got a Classrooms of the Future grant! You may recall that last month I was waiting to hear if we would be one of the lucky school districts, and now I am happy to report that we will be. However, the glass is either half full or half empty depending on whether one is a lucky English or math teacher or an unlucky social studies or science teacher. We had applied for a grant that would allow all the core subject high school teachers to have a Classroom of the Future. The amount received was unfortunately cut in half, so not all will benefit. At this time, although the details have not yet been shared with us, the report is that the English and math teachers will be receiving Classrooms of the Future while the science and social studies teachers will not. (Note: English and math are targeted on the PSSA standardized tests). If all goes as planned, this means that I and the other fortunate teachers will be receiving a cart of student laptops, a new laptop for the teacher (which will be welcomed as my trusty G3 iBook is now over 3 years old and can't handle some of the new applications), an InFocus machine, a SmartBoard, and possibly some cameras. There will also be training so all teachers can effectively use this equipment to improve student learning and prepare our students to succeed in the high-tech world marketplace. If you would like to read about this initiative, use this link, but remember that the amount of money involved has been cut in half from what is mentioned in the original article. <<http://www.pde.state.pa.us/k12/cwp/view.asp?a=3&pm=1&Q=122230>>

I will be filling you in as I learn more, but I am very excited about this program and look forward to using even more technology with my students. We got lucky for sure!

Speaking of getting lucky, you don't know it yet, but KeyMac is lucky too. I am the one receiving the vendor donations for our **November 28 auction (please note the change of date from the third Tuesday to the fourth Tuesday because of Thanksgiving week)**, and this past week has been like Christmas in October for me. Almost every day I come home to find boxes on my front porch and have great fun opening them to see what has been sent to us. Vendors have been very generous, and we have a collection of items to gladden any computer user's heart. Soon, I will be sending an accounting to Linda Smith, our webmaster, and she will be posting a list of the items on our website. You will be able to see which vendors have donated to us and what each has donated so you can make your auction plans before the big night. If you use the links to the vendors, you can read about the

items on their websites and know their value. If you win the auction, congratulations! If you don't, you can always buy directly from the vendors. Remember, these are the vendors that support us, so please return the favor when you are looking to buy. In addition to a plethora of items to sell, we will also be having a party at the Nov. 28 auction with the club providing drinks, cups, plates, and napkins and you members bringing goodies to share. Remember the fun we had last year and make plans to join us on the fourth Tuesday in November. I keep repeating this date change as I do not want any of you to gaze in disappointment at the locked door and dark room on our usual night.

Meanwhile, make plans to join us for a fun and informative evening of iLife training (iMovie and GarageBand) on October 17. Bring your laptops and bring a friend! 🍷



Keystone MacCentral Minutes

September 19, 2006

Business Meeting

President Linda Cobra welcomed us to the September meeting of Keystone MacCentral. She announced the program for the October meeting. We will be visited by members of the West Shore School District Technology Training team who will be presenting a program covering iMovie and GarageBand.

Eric Adams reported finding information on more vendors who he will be contacting with a request for donations for our annual auction in November. That meeting will be rescheduled to November 28 from our normal third Tuesday meeting day, as that would be only two days before Thanksgiving this year.

Q&A & Comments

A member reported audio problems on an Intel iMac. He was using Microsoft Office to view a PowerPoint presentation but the audio was not working. The first thing to check would be for an update to Microsoft Office for Intel Macs. He can also check the sound settings in individual program preferences as these might override the default system settings.

The next question was about using Classic with OS X 10.3 on an older Mac. There is a System Preference for Classic where the option to show Classic status in the menubar can be enabled. Eric Adams asked about other members' user experiences with the iTunes 7 update. He thought

the sound output level seemed lower with the new version.

Gary Brandt mentioned somewhat frequent crashes with Safari, particularly when accessing the CNN web site. He mentioned that he was now using the Firefox browser and other members said they were also using it.

While our discussions were going on, Jim Carey navigated to the discussion group section of the Apple web site <<http://discussions.apple.com/index.jspa>>. This is the first place that Jim looks to see if a problem he is having is an isolated case or if other users are reporting similar issues. He found a lot of posts regarding sound problems with iTunes 7. One solution being offered was to change QuickTime preferences from 16 bit to 24 bit. Jim asked if it would be possible to draw on a graphics tablet and project it onto a screen. Most graphics applications should allow that. Mimeo software might be another option worth considering.

We watched the user group edition of Breen's Bungalow after the Q & A session. The video is produced by Christopher Breen for Macworld magazine. This month the video covered podcasting.

Tools needed are a Mac and a microphone (built-in can work) and an audio editing application. Quality microphones can help. Blue Microphones' Snowball microphone is about \$160. It can be set to record omnidirectionally. Professional microphones along with audio interfaces can also be used but the cost can be much greater. Consider using a pop filter.

Noise can be reduced after recording using GarageBand. The Speech Enhancer effect is used. Select the voice track you recorded and the male voice or female voice track; then click the Info button to reveal the track info pane. Click the triangle next to Details and click the small pencil icon next to Speech Enhancer effect. In the next window move the Reduce Noise slider when playing back the track to adjust to your liking.

GarageBand can be used to cut out pauses in speech. Find the pauses in the voice track and use the Edit>Split command to split the tracks into pieces. Drag the track by its bottom corners to eliminate portions you want to cut from the beginning or end of the track. Drag the edited pieces close together again. You can use the Edit>Join command to combine pieces back into a single track.

GarageBand has a Jingles track where music can be added to a podcast. GarageBand includes many samples in long, medium, and short versions. It also now has ducking capabilities which Chris explained.

Export options for podcasts are mono, spoken, or musical and also a higher quality podcast. File sizes increase with better settings. You can also choose "Send Song to iTunes from the Share menu where it can be encoded using the exact settings you choose.

If you are going to share your podcast with the world, you will want to properly tag it. You can do this with GarageBand but Chris recommended a \$30 utility, Podcast Maker. It includes options to create enhanced podcasts with graphics and chapters. Click one button to publish your

podcast to your .mac account or another selected server. Podcast Maker creates an RSS Feed URL.

Chris noted that a popular podcast posted to a .mac account can use up all of the bandwidth Apple provides for that account. There are providers that allow unlimited bandwidth.

Program Notes

The training video section we watched at the September meeting was the Going Beyond The Box portion of the Inside Keynote 2 chapter. This part gave us a look at some more advanced features of Keynote.

Creating multimedia postcards was demonstrated. Keynote has an option to create custom slide sizes. The narrator showed how to add objects

to slides and how to modify them using the Inspector's many sections. The Build Inspector was used to make multiple objects appear on a slide in a user defined sequence.

The Document Inspector can be used to add audio to a project. Audio can be added to individual slides. Movies can also be added and resized if necessary. The video covered animating complex builds. Individual characters can be animated in Keynote 2. The narrator showed how best to create animated builds of objects that will appear at the same location on a slide in a defined sequence. The Build Inspector is critical for this task.

The Hyperlink Inspector is used to add hyperlinks to an area on a slide so an end user can navigate as they wish. Content from the Web can be included in a project. The "Insert Web

View" command gives you a large placeholder and a place to enter the URL of the desired web page.

Keynote can be used to create kiosk presentations. These kiosk presentations must be viewed from within Keynote. Available export options are to QuickTime, Flash, PowerPoint, PDF, and as a group of images. A set of presenter's tools are included in Keynote. You can control if you see the current slide, the next slide, notes, a clock, and a timer. The timer can be set to show either elapsed time or remaining time.

Jim Carey recommended using a handheld controller for doing presentations. They can be connected through USB to a Mac. Keynote appears to be up to the task of giving your presentations a professional look. ☞

By Leland Scott

And Another Thing The Mac Can Do That Windows Can't:

Remember Your !*?\\&^!*% PaS\$w0rdZ!

Musings From Mars

Easily Manage Your Hundreds of Passwords

This is the fourth article in a series. If you'd like to read the earlier articles, here is the *first* article, here is the *second*, and here is the *third*.

I didn't intend to write this article today... In fact, I'm right in the middle of three others that I want to finish. However, it just leaped at me from the front page of today's Washington Post Business page, and I couldn't resist. In an article called Access Denied, the writer bemoans the many passwords and PINs and such that the modern, web-connected human must juggle in daily life. People today have so many passwords to remember, they simply can't, and

this undermines the very security the passwords are set up to ensure, since companies will typically allow a shortcut to someone who claims to have forgotten a password — for a bank account, for example.

The Post article requires a registration, but even if it didn't, it's worth quoting a few paragraphs from it before proceeding:

Between work and personal e-mail, multiple banking and retirement accounts, two association memberships, photo sites, Web communities, and retailers like Amazon.com and eBay.com, C. David Gammel maintains 130 online accounts, each requiring a user name and password.

Gammel tracks his sundry log-in information in a file on his computer,

but on at least two occasions he's confused or mistyped his password, and been locked out of his SunTrust bank accounts, forcing him to call the bank or look for an open branch to regain access.

"It's frustrating — if understandable," said Gammel, a consultant in Silver Spring. He has also been denied access on a news site when he couldn't remember his log-in information, he said. "I bail on them if I'm having a difficult time," he said.

Password peeves come as a cost of doing business online using multiple computer applications. A typical professional relies on a dozen or more programs or Web sites to manage his life at home and work, and many of

Continued on page 6

And Another Thing The Mac Can Do That Windows Can't:

those require user authentication for access.

But the increased reliance on technology and the commensurate accumulation of passwords has reintroduced human fallibility into the security equation. Consumers' memories are straining under the pressure of remembering so many passwords. And when they fail to, companies increasingly are having to rely on the judgments of their employees to decide how to field calls from forgetful customers.

The average number of passwords used at work is between six and 12, and is increasing at about 20 percent a year, according to RSA Security Inc., a software and security consulting firm. To make matters more complex, Web sites and workplaces often ask users to change passwords at regular intervals, or require a mix of lowercase and capitalized letters, numbers, and special characters such as “#” or “\$” — a practice that makes it harder for a hacker to guess at a person's password.

But the abundance of frequently changing passwords — and the confusing jumble of permutations and combinations most computer users create — are not only inconvenient, they often undermine the very security goal they were meant to achieve.

At two-thirds of companies, workers kept passwords by writing them on a piece of paper kept in the office, according a study released last week by RSA. Another 59 percent stowed them in files on their computer, and 40 percent wrote them on sticky notes pasted around their computer monitor, allowing any passerby to see.

My first thought was, “Hmmm... These guys obviously use Windows. Probably never heard that life is not this way on a modern Mac.” Now,

before you Windows bigots get your backs up and start thinking to yourself, “Oh, right. This guy is biased, always proselytizing for the cult of Mac, acting smug and superior”, just consider the possibility that Apple has figured this one out better than Microsoft, and that a reasonable solution actually does exist to ease the password burden.

My wife is always amazed when I whip out Keychain Access and look up a password to some long-forgotten website where I'd shopped once upon a time. Or if I forget my login to Wachovia, I just do a quick search in Keychain Access for the password. Again, in the interests of time, I'm going to skip a third-party description of what a Keychain is, and give it to you straight from the horse's mouth (in this case, from Apple's “Help” documentation on Keychain Access):

About keychains

You can use keychains to reduce the number of passwords you have to keep track of. A keychain can store all your passwords for applications, servers, and websites; cryptographic keys and X509 certificates; or even sensitive information unrelated to your computer, such as credit card numbers or personal identification numbers (PINs) for bank accounts.

When you connect to a network server, open an email account, or access any password-protected item that is keychain-aware, your keychain can provide the password so you don't have to type it.

You start with a single keychain, which is created automatically the first time you log in to your Mac OS X user account. Your default keychain has the same password as your login password. This keychain is unlocked automatically when you log in to Mac OS X and is referred to in Keychain Access menus as the “login” keychain.

You can create different keychains to store passwords for different purposes (for example, one for work and one for online shopping) or make a copy

of a keychain so you can take it with you to other computers.

Keychains can be accessible to just a single user or shared with the other users of the computer.

Now, I've done some research on this topic, folks, and as far as I can determine, Windows has no concept analogous to Apple's Keychain. If someone knows otherwise, please enlighten me. You can write your own blog about how the Washington Post writer was being ignorant and not using his computer to his best advantage.

As that writer points out, you can buy third-party Windows software and services that attempt to do what Keychains do, but there are several pretty important ways that this solution is inferior to Apple's:

- They cost money.
- They require learning yet another password.
- If you forget that other password, you're f**ked.
- If you use one of the web-based services, your passwords are floating out there in someone else's data server, vulnerable to breakins. Especially if they're being stored on a, god-forbid, Windows server.
- They require setup.
- They might break if basic Windows APIs for password or security change in the future.
- They rely on companies that might go out of business, possibly taking all of your passwords with them.

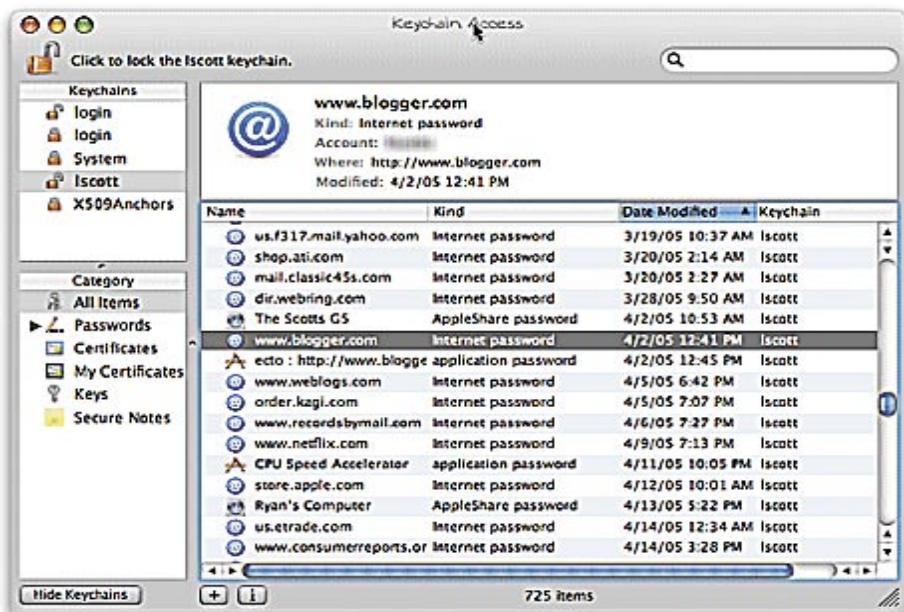
Apple's Keychain technology has gotten much better as Mac OS X has matured. In the first round or two—up until Jaguar (10.2)—it seemed to me that Keychains were vulnerable to getting mixed up. Not in a security-problem way, but just that you couldn't always rely on Keychain Access to find a lost password. However, that was years ago now, and Keychain today is a marvel of efficiency and ingenuity. It's saved

me dozens of times from having to get a new password—which usually means having to change the password again—or, worse yet, having to call up a company, sit on hold forever, and convince the bored answering-service attendee to give me a new password.

As the Post article points out, this is a frequent possibility given the number of times we have to log in to websites and applications nowadays. Keychains and Keychain Access are simply wonderful tools that Mac users have at their disposal to ease one of the burdens of modern life.

I'll leave it to the curious reader to discover an in-depth discussion of how Keychains work in a Mac user's daily life. Very briefly, most Mac programs that set passwords give the user the option of storing that password in their Keychain. Safari and other WebKit-based web browsers have a preference setting that lets users store their login information to websites in their Keychain. One of the reasons I don't use Firefox regularly is that it doesn't have this option. I just really like having all my passwords consolidated in an easy-to-search, secure archive. Not only that, Safari can be configured to automatically fill in usernames and passwords for any items you've stored in the Keychain... something Firefox, unfortunately, just can't do. (Note: Safari won't do this for passwords stored on secured websites, but you can still look the password up in your Keychain if you don't remember it.)

When I forget a password, I launch Keychain Access, which is a surprisingly sophisticated application that I use in a very simple way. Namely, I enter a search term in the search field, which invokes a live search on the Keychain database and displays matching results below. Each result shows the username associated with the website or application, so it's easy to find which Key I'm looking for. Double-clicking on the Key brings up a dialog panel that gives me some management capability on the particular key. I'm sure this is cool and



significant, but I go straight for the “Show password” checkbox.

If I'm trying to access a password in a Keychain other than the one I logged into the Mac with, clicking on the “Show password” checkbox will require that I authenticate to see the password. If I don't have rights on that Keychain, I'm blocked. But normally, the Key I'm looking for is one associated with my own user account, so when I click on the checkbox, my password displays in the little text field there.

That's all there is to it.

Actually, I hardly ever see the Keychain Access interface in the screenshots I just showed you, lovely though they may be. That's because I'm a Quicksilver user. Quicksilver can do just about anything, you know... including quickly looking up lost passwords. Just a couple of keystrokes here, a couple of flicks of the arrow key, and voila!



Here's a link to a short movie to show you what I mean:

<http://www.musingsfrommars.org/2006/09/and-another-thing-the-mac-can-do-that-windows-cant-remember-your-pasw0rdz.html>

Miraculous? Hardly. Obvious? Definitely. Convenient? LOL

A reason to switch from Windows? Nah. I wouldn't call Keychains a Windows killer, unless they happened to be your last straw.

I'm keeping this short because I've learned from previous writeups that the old adage, “You can lead a horse to water, but you can't make him drink”, is definitely true for stubborn Windows devotees. They will always think of some reason why this or that feature of Mac OS X is unimportant to them, and why they should continue acting as if Macs don't really exist. This article is not intended to benefit those guys (and gals). It's simply intended to point out that password management doesn't have to suck.

If you were looking for a last straw to consider ditching Microsoft Windows, Keychains just might be it. In any case, they're definitely another small thing Macs can do that Windows PCs can't.

<http://www.musingsfrommars.org>
Copyright © 2006 Leland Scott

by Maria O. Arguello, MLMUG,
<arguello10@comcast.net>

Boot Camp

Products: Boot Camp (Beta) and Microsoft Windows Professional XP Service Pack 2

Companies: Apple and Microsoft

URL: apple.com and microsoft.com

Price: Boot Camp Free and Microsoft Windows XP Professional (SP2) \$299.99

Test System: MacBook Pro, 2-GHz Intel Core Duo, 2 GB RAM, OS 10.4.7

Date: October 2006

Reviewer: Maria O. Arguello

Rating: 3.5 out of 5 apples for Boot Camp

Rating: 4.5 out of 5 apples for Microsoft Windows Professional XP Service Pack 2

Boot Camp is Apple's beta program for running Windows on the Intel Mac computers. Out of sheer curiosity and to give the Mac community a first-hand account of what it takes to install it, I have documented my experience. Boot Camp's competitor is Parallels. I chose Boot Camp over Parallels to run PC-only games on my Mac. With Boot Camp Windows runs natively with full access to the CPU, Graphics, and other resources. PC games run fast using all the power of the computer. With Parallels Windows XP runs on a Virtual Machine which means that OS X runs like normal with Windows XP inside a separate application, in effect two operating systems running at once. Thus PC games run slower or not at all.

Boot Camp (beta) can be downloaded from the Apple site. Once downloaded, I couldn't find it on my hard drive to install it. None of the documentation mentioned where the application resides in the hard drive. Spotlight to the rescue and found it in the Utilities folder.

Boot Camp comes with documentation, which I followed. You have to have OS 10.4.6 with the appropriate firmware installed. When you run Boot Camp Assistant it lets you know if you need to update your firmware or system software.

The next step takes you through the process of burning a Macintosh Drivers CD and creating a new partition for the Windows XP operating system. All the steps are very clearly explained.

When you are ready to partition the start-up disk you can drag the divider to set the partition size. This is done without disturbing the original Mac OS X partition; all the software and information remains intact. I ran into problems at the point of partitioning. I got the following error message-

I didn't want to have to reformat my 100 GB hard drive. Although I had 23 GB free space on my startup drive I couldn't understand why I couldn't allot an 8-GB partition. After, giving a lot of thought to reformatting or not, I decided to reformat.

I was ready to go with Carbon Copy Cloner and a new 160 GB external hard drive. About ten minutes into the cloning process the external hard drive stopped and the process stopped dead on its track.

I had posted a question to several discussion groups to see if anybody else had encountered my problem. Someone wrote back that they had received the same error and advised to persist with the installation and to ignore the error message. I did just that and it WORKED! The only problem was that I had to keep the default partition size to 5GB. I have found since that that is not enough. A better size would have been 10 GB. Okay, so I was ready to install Windows XP Service Pack 2 on a single disk (a must). That installation went fairly


well. The documentation instructs as to the formatting type NTFS and FAT with reasons for each. At some point during the installation, the computer screen went black. I forced quit and restarted the computer. Windows finished the installation without any further problems.

After installing Windows, the next step was to install the Mac drivers from the Macintosh Drivers CD. The drivers installed were for various capabilities for graphics, networking, audio, Airport wireless, Bluetooth, the Eject key (on Apple keyboards), and brightness control for built-in displays.

The first order of business was to connect wirelessly to the Internet on the Windows side. I have an Airport Extreme Base Station as my wireless router. Windows could not 'see' it. I think I spent some time trying different things like changing settings in Windows without being sure of what or why. I finally gave up and went to the Apple site to read the discussions about Boot Camp. I found one very helpful response titled: Accessing an Airport Network with a Windows XP PC or laptop (with XP SP2), just what I needed, which stated that some wireless routers cannot connect to a closed wireless network because you cannot see the network in the Available wireless network window. This was my clue. I had a closed wireless network, so I changed it in the Airport Admin Utility and it was seeing immediately. Success at last. In conclusion: Boot Camp (Beta) is flaky to install. The user has to restart each time to go to the Mac or Windows side. This is a pain. The PC-only game Half-Life ran fast natively in Windows using Boot Camp. That was good.

About the author:

Maria O. Arguello is president and vendor liaison of the Main Line Macintosh Users Group (MLMUG) also member of PMUG, NCMUG, MUGSNJ, SJAUG, and CCPMUG.

She is the Apple User Group Regional Liaison for the Northeast United States, as well as the Liaison for Online Groups. 

Backup for Disaster Recovery

This article is directed primarily at Microsoft users and administrators. It does explain different types of backups. It also offers advice about backup procedures. While some of the steps are obviously for administrators, there are many steps that are applicable to Mac home users.

prepare for the worst case scenario

Planning a backup and restoration of files is the most important step to protect data from accidental loss in the event of data deletion or a hard disk failure. The backup copy can be used to restore lost or damaged data. For taking backups and restoring files, Microsoft has provided a utility called Backup. The Backup utility creates a copy of data on a hard disk of a computer and archives data on another storage media. Any storage media such as removable disks, tapes, and logical drives can be used as a backup storage.

While taking a backup of files, the Backup utility creates a volume shadow copy of the data to create an accurate copy of the contents. It includes any open files or files that are being used by the system. Users can continue to access the system while the Backup utility is running without the risk of losing data.

Volume Shadow Copy

Backup provides a feature of taking a backup of files that are opened by a user or system. This feature is known as volume shadow copy. Volume shadow copy makes a duplicate copy of all files at the start of the backup process. In this way, files that have changed during the backup process are copied correctly. Due to this feature, applications can continue writing data to the volume during a

backup operation, and backups can be scheduled at any time without locking out users.

Types of Backups

The Windows Backup utility provides various types of backups. While planning for a backup strategy, it is important to choose an appropriate type or combination of different types of backups. The backup type determines which files are transferred to the destination media.

Each backup type relates to an attribute maintained by every file known as archive (A). The archive attribute is set when a file is created or changed. When an archive attribute is set, it means that the backup of this file has not been taken or it is due.

Note: When it is said that "The file is marked as backup", it means that the archive attribute of the file has been cleared.

Normal Backups

When an administrator chooses to use a normal backup, all selected files and folders are backed up and the archive attribute of all files are cleared. A normal backup does not use the archive attribute to determine which files to back up. A normal backup is used as the first step of any backup plan. It is used with the combination of other backup types for planning a backup strategy of an organization. Normal backups are the most time-consuming and are resource hungry. Restoration from a normal backup is more efficient than other types of backups.

Incremental Backups

An incremental backup backs up files that are created or changed since the last normal or incremental backup. It takes the backup of files of which the

archive attribute is set. After taking a backup, it clears the archive attribute of files. An incremental backup is the fastest backup process. Restoring data from an incremental backup requires the last normal backup and all subsequent incremental backups. Incremental backups must be restored in the same order as they were created.

Note: If any media in the incremental backup set is damaged or data becomes corrupt, the data backed up after corruption cannot be restored.

Differential Backups

Differential backup backs up files that are created or changed since the last normal backup. It does not clear the archive attribute of files after taking a backup. The restoration of files from a differential backup is more efficient than an incremental backup.

Copy Backups

A copy backup copies all selected files and folders. It neither uses nor clears the archive attribute of the files. It is generally not a part of a planned scheduled backup.

Daily Backups

A daily backup backs up all selected files and folders that have changed during the day. It backs up data by using the modified date of the files. It neither uses nor clears the archive attribute of the files.

Combining backup types

The easiest backup plan is to take a normal backup every night. A normal backup every night ensures that the data is restored from a single job the next day. Although the restoration of data from a normal backup is easy, taking a backup is time consuming.

Continued on page 10

Backup for Disaster Recovery

Hence, an administrator is required to make an optimal backup plan. An administrator must consider the following points before creating a backup plan:

- The time involved in taking the backup.
- The size of the backup job.
- The time required to restore a system in the event of a system failure.

The most common solutions for the needs of different organizations include the combination of normal, differential, and incremental backups.

Combination of Normal and Differential Backups

An administrator can use a combination of a normal backup and a differential backup to save time in taking a backup as well as for a restoration of data. In this plan, a normal backup can be taken on Sunday, and differential backups can be taken on Monday through Friday every night. If data becomes corrupt at any time, only a normal and last differential backup are required to be restored. Although this combination is easier and takes lesser time for restoration, it takes more time to take backup if data changes frequently.


Combination of Normal and Incremental Backups

A combination of normal and incremental backups can be used to save more time for taking backups. In this plan, a normal backup is taken on Sunday and incremental backups on Monday through Friday every night. If data becomes corrupt at any time, a normal and all incremental backups till date are required to be restored.

Best practices for Backup

According to Microsoft, administrators should take the following steps to ensure the recovery in case of a system failure:

- Develop backup and restore strategies and test them.
- Train appropriate personnel.
- In a high-security network, ensure that only administrators are able to restore files.
- Back up all data on the system and boot volumes and the System State.
- Back up the data on all volumes and the System State data at the same time.
- Create an Automated System Recovery backup set.
- Create a backup log.
- Keep at least three copies of the media. Keep at least one copy off-site in a properly controlled environment.
- Perform trial restorations.
- Secure devices and media.

From the User Group Network News Service at <http://www.user-groups.net/> 

by Jeff Carlson
<jeffc@tidbits.com>

Mac OS X 10.4.8 Fixes Numerous Issues

The autumn harvest from Apple's programmers came in last week, as Apple updated almost their entire software product line. Although each major application saw revisions, most Mac users will be interested in Mac OS X 10.4.8, a bug-fix update that spans several areas of the operating system.

Notable changes include security enhancements, improved connections using the Apple USB Modem, support for the EAP-FAST protocol to improve wireless network authentication security, better compatibility with third-party USB hubs, better performance on some broadband networks, and improved camera RAW support. Also, Apple has addressed a few bugs that affect Microsoft Office, and fixed a problem where Rosetta code translation on Intel-based Macs could be inaccurate.


The coolest new feature is that if you hold down the Control key while scrolling with a scroll wheel (or a pseudo scroll wheel, such as is provided by Raging Menace's Side Track utility), the screen zooms smoothly. Screen zooming has been available for a long time (see the Universal Access preference pane), but using keyboard shortcuts to zoom in and out is awkward. Scroll wheel-based zooming, which you can control in the Mouse view of the Keyboard & Mouse preference pane (and where you can also choose another modifier key besides Control), will be a boon to anyone with less-than-perfect eyesight or

presenters who want to focus on a particular aspect of the screen.

Mac OS X 10.4.8's release notes were chatty, for Apple, but we're still pondering several of the items, such as "Windows File Sharing now generates only one process, avoiding an issue that could cause a Mac OS X computer to become unresponsive if it won a master browser election" - might a recount help?

Then there's "Resolves an issue in which a Finder alert message with the buttons 'Initialize', 'Ignore', and 'Eject' might not appear after connecting a partitioned FireWire hard drive." We generally prefer not seeing that dialog when we connect FireWire hard drives of any sort, other than uninitialized ones.

And although Apple does explain this next comment in a link, our first reading had us desperately trying to recall our classes in theoretical physics: "Improves Apple File Sharing client performance by changing the default AFP WAN quantum size."

The update is available in several forms, depending on your machine. Software Update should deliver the correct version, but updaters are also available as stand-alone downloads. For the Intel updates, Apple notes that the computer will restart twice after the update has been applied. As with all system updates, we recommend making a backup before proceeding. 

October Software Review

VLC media player 0.8.5

<http://www.videolan.org/>

Requires OS X 10.3.9 or higher. Separate downloads for PPC and Intel

Your Mac can display most online videos. Videos presented in Quick-time format are not a problem. However from time to time other formats are used. Windows Media Player another popular player. It must be downloaded. Luckily it is readily available for the Mac and is free. But for real flexibility, the player of choice is VLC media player.

VideoLAN produces VLC media player and other free software for video, released under the GNU General Public License. It started as a student project at the French École Centrale Paris but is now a worldwide project with developers from 20 countries.

VLC media player is a highly portable multimedia player for various audio and video formats. It's multi-platform (Linux, Windows, Mac OS X, BeOS, BSD, Solaris, QNX, iPaq, WinCE). It can read DVDs, VCDs, MPEG & DivX files (incl. H.264 support) and most audio files such as MP3, M4A/ACC, Ogg Vorbis, etc., as well as data sent by various streaming-protocols on your local network or the internet. VLC supports both IPv4 and IPv6.

Other Software

by Glenn Fleishman
<glenn@tidbits.com>

Fission 1.0.0

<http://www.rogueamoeba.com/fission/>

Universal Binary. OS X 10.4

Fission Manipulates Audio Tracks of All Stripes

Rogue Amoeba last week released Fission, a simple audio-manipulation program which can handle AIFF, MP3, unprotected AAC (m4a), and Apple Lossless format files. Fission's most notable feature is lossless editing of AAC and MP3 files, a capability that's currently unique with regard to AAC and for MP3 found only in certain high-end editing programs or in the discontinued and now free Audion music player. Freeverse's \$80 Sound Studio 3 uses third-party support for editing MP3 and AAC, and can import and export in those two compressed formats, but it can't provide lossless, native editing that avoids re-encoding when saved.

Like Rogue Amoeba's other products, Fission has focus - it's aimed at helping you trim, split, and clean up audio files, but doesn't offer all the features of other audio editors. In other words, there's a Delete item in the Edit menu but no Paste. You can remove audio by selecting it and clicking the Cut button at the top of the audio window. Choosing Cut & Split or using the Split tool divides an audio file into several clips, each of which is saved as a separate file when you're done with the file. Fission also replaces the Save command in the File menu with Save Audio (Command-Shift-S, like most Save As commands) to avoid overwriting the original file you're editing. Finally, a Crop tool removes everything in the file except the current selection.

The idea is that you can trim unwanted bits from audio you've captured or created, such as commercials in the middle of radio shows, "ums" and static from a podcast, or even the gratuitous applause at the end of a

live recording. Fission can modify selected segments for fade-ins and fade-outs, too.

When you're working with an AAC or MP3 file, Fission makes changes directly to the original audio data, avoiding a cycle of decoding and re-encoding that would produce quality loss. The program can also export to any audio format available through QuickTime, including AIFF and WAV. Rogue Amoeba makes much of the fact that you can create ringtones for some cell phones by trimming and fading files, and then saving them as MP3 or AAC to phones that can import those audio formats for ringtone playback.

Fission's interface is delightful, offering the scrub approach to selection, in which dragging a playhead through the audio plays back whatever is at the playhead, skipping through it at the speed you're dragging. After making a selection, you can drag a playhead on the left to scrub backwards, or on the right to scrub forwards. (Scrubbing can be disabled from the Preferences dialog box, too.)

Fission costs \$32 and is a universal binary; there's a demo in which saved audio is intentionally degraded with a series of audio fades. Owners of Audio Hijack Pro can obtain a \$14-off coupon. Fission requires Mac OS X 10.4 and is a 2.5 MB download.

Before Upgrading System Software

- The Standard update contains the complete versions of all files/packages to be updated. It is used only for updating the immediately previous

Continued on page 12

October Software Review

version of Mac OS X. For example, this month the Mac OS X (Standard) Update 10.4.8 should be just used to update Mac OS X 10.4.7.

- The Combo update contains the complete versions of all files/packages to be updated, as well as all updated files/packages from all preceding updates to your version. For example, this month the Mac OS X Combined Update 10.4.8 will update any version of OS X 10.4.

To avoid strange problems and things that go bump in the night, either

- 1) run Software Update on all computers to view available updates; if the version of the Mac OS X Update (shown in the information panel at the bottom of the Software Update window) and the size of the update (shown in the Size column) are identical, you should be able to download the update on one computer and use it to update all,

- 2) or be sure to apply the Combo update.

If you have used some utility to extract specific files from an update, please don't tell me. I don't want to hear about it...

We recommend the following procedure when applying a System Update

1. Consider backing up your current system with Carbon Copy Cloner or SuperDuper! (Sometimes new upgrades can introduce very annoying problems.)

2. Make sure your hard drive is in good shape: Boot from the OS X Install CD and run Disk Utility's Repair Disk function (or use a third-party drive utility such as DiskWarrior or TechTool Pro).

3. Run Disk Utility's Repair Disk Permissions function from the OS X Install CD.

4. If you have any FireWire devices connected, turn them off and disconnect them before installing the update. This includes iPods, as the iPod is a FireWire hard drive.

4. Install the update.

5. After rebooting, again run Repair Disk Permissions.

Using this update procedure avoids many of the common problems incurred after each update to OS X.

And remember the often repeated last resort advice from MacFixIt: Re-apply Combo if your Mac is a bit grumpy after you apply the update.

Apple Updates

OS X 10.4.8 Update (Intel) 09/29/06

System Requirements

- OS X 10.4.7
- Intel based Macintosh

The 10.4.8 Update is recommended for all users and includes general operating system fixes, as well as specific fixes for the following applications and technologies:

- connecting to wireless networks using the EAP-FAST protocol
- Apple USB modem reliability
- using OpenType fonts in Microsoft Word
- compatibility with 3rd party USB hubs
- scanner performance
- RAW camera support
- printing documents with Asian language names
- performance of the Translation widget
- broadband network performance
- security updates

Aperture 1.5 Update 09/29/06

System Requirements

- OS X 10.4.8

Aperture 1.5 delivers more than 20 new and enhanced features that improve file management, metadata handling, and image adjustment. This update also addresses numerous

issues related to overall reliability, performance, and compatibility.

Security Update 2006-006 (10.3.9 Client)

09/29/06

System Requirements

- OS X 10.3.9

Security Update 2006-006 is recommended for all users.

OS X 10.4.8 Update (PPC) 09/29/06

System Requirements

- OS X 10.4.7
- PowerPC based Macintosh

The 10.4.8 Update is recommended for all users and includes general operating system fixes, as well as specific fixes for the following applications and technologies:

- connecting to wireless networks using the EAP-FAST protocol
- Apple USB modem reliability
- using OpenType fonts in Microsoft Word
- compatibility with 3rd party USB hubs
- scanner performance
- RAW camera support
- printing documents with Asian language names
- performance of the Translation widget
- broadband network performance
- security updates

OS X 10.4.8 Combo Update (PPC) 09/29/06

System Requirements

- OS X 10.4 or later
- PowerPC based Macintosh

OS X 10.4.8 Combo Update (Intel) 09/29/06

System Requirements

- OS X 10.4.4 or later
- Intel based Macintosh

The 10.4.8 Update is recommended for all users and includes general operating system fixes, as well as specific fixes for the following applications and technologies:

- sharing using AFP, SMB/CIFS, NFS and FTP file sharing protocols
- reliable access to Open Directory, LDAP and Active Directory services

- login and authentication in a variety of network environments
- file access and byte range locking with AFP file sharing
- network access when using proxy server automatic configuration files
- connecting to Cisco VPN servers using IP/Sec and NAT
- AirPort including connectivity to EAP-FAST networks
- Bluetooth wireless connectivity
- RAW camera support, including updated ATI and NVIDIA graphics drivers
- usability of Dashboard and widgets
- searching iWork '06 and Microsoft Office documents with Spotlight
- saving Word documents automatically when using a network home directory
- viewing of QuickTime streaming media behind a firewall
- audio playback in QuickTime, iTunes, Final Cut Pro, and Soundtrack applications
- ensuring icons are spaced correctly when viewed on desktop
- determining the space required to burn folders
- synchronizing contacts, bookmarks, and calendars to .Mac and mobile phones
- mounting and unmounting iDisk volumes
- time zone and daylight savings for 2006 and 2007
- using OpenType fonts in Microsoft Word
- Address Book, AppleScript, Automator, Dictionary, Font Book, iCal, iChat, DVD Player, Keynote, Mail, Preview, Safari, and Stickies
- Disk Utility, Keychain Access, Migration Assistant, and Software Update
- compatibility with third party applications and devices
- previous OS X updates and stand-alone security updates

iMovie HD 6.0.3

09/28/06

System Requirements

- OS X 10.3.9
- OS X 10.4.3 or later
- OS X 10.4.4 recommended
- iMovie HD 6.0.2

This update addresses compatibility for accessing Aperture 1.5 content in iMovie HD. It also improves overall

stability and addresses a number of other minor issues.

Pages 2.0.2

09/28/06

System Requirements

- OS X 10.3.9 or later
- Pages 2.0.1

This update is for Pages 2.0.1 and addresses compatibility for accessing Aperture 1.5 content in Pages.

iWeb 1.1.2

09/28/06

System Requirements

- OS X 10.3.9
- OS X 10.4.3 or later
- iWeb 1.1.1

This update addresses compatibility for accessing Aperture 1.5 content in iWeb.

iPhoto 6.0.5

09/28/06

System Requirements

- OS X 10.3.9
- OS X 10.4.3 or later
- iPhoto 6.0.4

This update to iPhoto contains new calendar, greeting card, and postcard themes for use with Apple print services, including a variety of holiday card designs. It also addresses compatibility for accessing Aperture 1.5 content in iPhoto.

iDVD 6.0.3

09/28/06

System Requirements

- OS X 10.3.9
- OS X 10.4.3 or later
- iDVD 6.0 or later

This update addresses compatibility for accessing Aperture 1.5 content in iDVD.

GarageBand 3.0.4

09/28/06

System Requirements

- OS X 10.3.9
- OS X 10.4.3 or later
- GarageBand 3.0.2 or later

This update addresses compatibility for accessing Aperture 1.5 content in GarageBand.

Keynote 3.0.2

09/28/06

System Requirements

- OS X 10.3.9 or later
- Keynote 3.0.1

This update is for Keynote 3.0.1 and addresses compatibility for accessing Aperture 1.5 content in Keynote.

iTunes 7.0.1

09/27/06

System Requirements

- OS X 10.3.9 or later

iTunes 7.0.1 addresses stability and performance issues with Cover Flow, CD importing, iPod syncing, and more.

Logic Express Update 7.2.3

09/27/06

System Requirements

- OS X 10.4.3 or later
- Logic Express 7.2.1 or later

Logic Express 7.2.3 addresses performance issues when Logic Express 7 is used on Mac Pro and G5 Quad computers. Logic Express 7.2.3 is recommended for all Mac Pro and G5 Quad users. An existing Logic Express 7.2.1 or Logic Express 7.2.2 installation is required for this update.

Logic Pro Update 7.2.3

09/27/06

System Requirements

- OS X 10.4.3 or later
- Logic Pro 7.2.1

Logic Pro 7.2.3 addresses performance issues when Logic Pro 7 is used on Mac Pro and G5 Quad computers. Logic Pro 7.2.3 is recommended for all Mac Pro and G5 Quad users. An existing Logic Pro 7.2.1 or Logic Pro 7.2.2 installation is required for this update.

Pro Applications Update 2006-02

09/26/06

System Requirements

- OS X 10.4.7
- QuickTime 7.1.3

This update addresses several issues with underlying frameworks and shared components for Apple's professional applications and is strongly recommended for all users of:

- Final Cut Studio 5.1

Continued on page 14

October Software Review

- Final Cut Pro 5.1
- Motion 2.1
- Soundtrack Pro 1.1
- DVD Studio Pro 4.1
- LiveType 2.1
- Compressor 2.1
- Apple Qmaster 2.1
- Final Cut Express HD 3.5

Final Cut Pro 5.1.2

09/26/06

System Requirements

- OS X 10.4.7
- QuickTime 7.1.3

Final Cut Pro Update 5.1.2 provides important bug fixes and compatibility updates for certain Canon, Sony, JVC and Panasonic devices. This update is recommended for all Final Cut Pro 5.1 and Final Cut Pro 5.1.1 customers.

Security Update 2006-005 (10.3.9)

09/21/06

System Requirements

- OS X 10.3.9
- AirPort Software 4.2
- AirPort Extreme Driver Update 2005-001

Security Update 2006-005 is recommended for all users and improves the security of AirPort.

Mac Pro EFI Firmware Update 1.0

09/19/06

System Requirements

- OS X 10.4.7
- Mac Pro

This EFI Firmware Update fixes several Boot Camp and start up issues on Mac Pro computers.

Firmware Restoration CD 1.1

09/19/06

System Requirements

- OS X
- iMac (early & mid 2006)
- Mac mini (early 2006)
- MacBook Pro (early 2006)
- MacBook (early 2006)
- Mac Pro (mid 2006)

This update is used to restore the firmware of an Intel-based iMac (early & mid 2006), Mac mini (early 2006), MacBook Pro (early 2006), Mac Book (early 2006), or Mac Pro (mid 2006) to original factory condition.

It can only be used to restore the Firmware after an interrupted or failed update.

Mac Pro SMC Firmware Update

09/19/06

System Requirements

- OS X 10.4.7
- Mac Pro

The SMC Firmware Update adjusts fan behavior in the Mac Pro.

Front Row 1.3

09/12/06

System Requirements

- OS X 10.4.5 or later
- Built-in infrared (IR) receiver
- iTunes 6.0.4 or later
- iPhoto 6.0.2 or later

This Front Row update provides for improved iTunes compatibility.

QuickTime 7.1.3

09/12/06

System Requirements

- OS X 10.3.9 or later

QuickTime 7.1.3 is an important release that delivers numerous bug fixes and addresses critical security issues. This update is recommended for all QuickTime 7 users and is required for playback of content purchased in the iTunes Store.

Recent Upgrades Worth Checking

Google Earth 4.0.2077.0

<http://earth.google.com/>

Requires OS X 10.3.9 and an internet connection, preferably high speed.

An interactive map of the world with many overlays that provide additional data.

iClock 3.0.4

<http://www.scriptsoftware.com/>

Requires OS X 10.3 or later.

Replacement for Apple's menu clock

Little Snitch 1.2.3

<http://www.obdev.at/products/>

Requires OS X 10.2 or greater. Universal Binary. When an application tries to establish a network connection, Little Snitch intercepts the attempt and brings up an alert panel, telling you all the connection details including the name of the application which initiated the connection

PithHelmet 2.6.7

<http://culater.net/software/PithHelmet/PithHelmet.php>

U.B. Requires OS X 10.4. PithHelmet is an extended site preferences and ad blocking plugin for Apple's Safari browser.

PopChar X 3.0b5.dmg

<http://www.macity.com/products/popcharx/>

U.B. Requires OS X. PopChar X makes "typing" of special characters easy without having to remember keyboard combinations. It installs a menu that shows all characters available in the current font. Any character can be inserted in the current document by simply selecting it from the menu.

Snapz Pro X 2.0.3

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

Requires OS X 10.2 or greater. Snapz Pro 2 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. Requires System 8.


Spamfire 2.23

<http://www.matterform.com/>

Requires OS X. Spamfire automatically reduces spam by removing unwanted commercial and pornographic email.

SuperDuper! 2.1.3

<http://www.shirt-pocket.com/>

Requires OS X 10.3.9 or higher. Universal Binary. Does not support optical or tape drives. Use SuperDuper to copy your system to another drive. As time goes on, use the Smart Update feature to keep your backup system current. 

Hardware Firewalls: A (very) Basic Overview

This article may be a bit technical, but it does explain what firewalls are and how they are set up.

In this article, I will give a brief overview of hardware firewalls, what they do, and take a look at a few popular models.

Note: this article will take a high-level view of firewalls, but assumes you know the basics of TCP/IP and networking.

What is a hardware firewall? A hardware firewall is a network device that separates networks. Firewalls can be used to separate a private network (i.e.: office network) from a public network (i.e.: the Internet), or to separate multiple private networks (i.e.: wired and wireless networks). Firewalls are rule-based, which means an administrator must configure what is allowed or denied in a series of rules. A firewall inspects every piece of data that passes through it and examines the source address (who sent it), destination address (where is it going), and the protocol (what it is). The firewall then consults its rule base and allows or denies the data based on the way you have it configured. This provides a high level of security and configurability, but involves administrative overhead.



For example, let's say your Mac has an IP address of 192.168.0.1 and you want to be able to visit a web page at 17.254.3.183. The source address of is 17.254.3.183 and the destination address is 192.168.0.1. Since this is a web page, the protocol is HTTP, which

uses port 80. So the firewall rule would look something like this:

Allow ip 17.254.3.183 192.168.0.1 80

Every firewall's syntax is a little different, but the above rule shows the general idea. Normally, you have an "allow" or "deny" tag, followed by the source address, destination address, and port number. Now, once this rule is in place, HTTP traffic will be allowed to pass from the Internet to your Mac. However, if the web site were to send a request on port 81, it would be denied, because the rule specifies port 80.

So... I know what you're thinking... this is going to take forever to setup if I have to enter the IP of every website I want to visit. That's true... but luckily most firewalls allow for wildcards, which make configuration much easier. A wildcard is normally specified using the word "any" or a * character. So to configure a firewall rule that would allow all HTTP traffic from the Internet to 192.168.0.1, the rule would look something like this:

Allow ip any 192.168.0.1 80

Rules are the basis of all firewalls. The firewall is only as good as the rules that it houses. A really expensive firewall with a badly configured set of rules provides less security than a cheap firewall with a good rule set. For this reason, configuring a firewall may not be for the faint of heart. Luckily, most new firewalls are configurable through a web page, which makes for much easier administration. Years ago, all firewalls were configured via the command line interface. In addition, most consumer level firewalls come configured with a basic set of rules that will allow most common protocols.

In addition to firewalls allowing/denying traffic, they can also log traffic. In many cases, the logging feature is more important the allow/deny feature. Just like the rules, the logging can be configured to monitor all traffic, only blocked traffic, only allowed traffic, only traffic from the Internet... or whatever else you can come up with. However, logs are only useful if they are reviewed regularly, which means even more administrative overhead. Someone has to regularly sort through the logs if they are going to be any use to you.

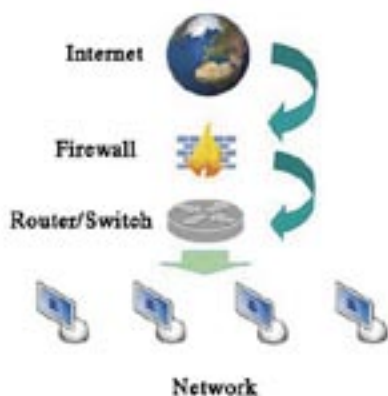
There are a variety of hardware firewalls on the market for home users, small businesses, and big businesses. Some popular manufacturers include: Cisco, WatchGuard, SonicWall, and 3Com. Since going into detail about all of them is beyond the scope of this article, I will concentrate on two that are well suited to home users/small business users: SonicWall's TZ170 and WatchGuard's Firebox SOHO 6. Both of these network appliances are very affordable, with the SonicWall selling for about \$500 and the WatchGaurd at about \$300. They are not much bigger than an average dictionary and provide a ton of functionality. Both have an easy-to-use web page interface and come setup with a basic rule set to get you started. Many home users may be able to plug one of these devices in and never touch it again. However, if you have to make changes, a basic knowledge of firewall rules is a good idea. Since hardware firewalls are network-based, there are no Mac/Windows compatibility issues. Any firewall should work the same with a Mac as it does with a PC. Which is good news for those of you with mixed networks. Out of these two

Continued on page 16

Hardware Firewalls:

models, I would have to say I'm partial to the WatchGuard, but they both have some great features.

Generally the firewall will sit on the perimeter of your private network, protecting your Mac(s) from the Internet. On smaller networks the firewall is generally placed between the router/switch and the Internet. However, on larger networks, the firewall usually sits behind the router. In some cases, the firewall can actually replace the router, and sit directly between the Mac(s) and the Internet. The diagram below shows the placement of a firewall on a typical small/home network.



At this point, some of you are probably thinking, "Wow, hardware firewalls are way too much work. I don't need one." That statement may be true in a lot of cases. The average home user will probably never need or want a hardware firewall. For most folks, a NAT router and software firewall (included with Mac OS X) will be more than enough. However, if you have critical business data that is stored on your network, if you store customer account information, or if you are just a network security geek like me, you may have a need for a hardware firewall. Just keep in mind, the firewall is only as good as its configuration. If you are new to networking, make sure you have an IT Professional you can consult when your firewall needs changes. They are extremely functional and powerful devices, but are only as good as the configuration. ☒

by Tim Sullivan

Rumors and Reality

Check out CNet's video about how to make a T-Shirt with your favorite picture at <http://reviews.cnet.com/4660-10165_7-6641104.html?tag=cnetfd.mt>. You need your Mac, iPhoto, image transfer paper and a color inkjet printer. This CNet video shows you how — it requires the Adobe (formerly Macromedia) Flash plugin.

Seagate has claimed a record for the highest recording density achieved using a hard disk platter: 421Gb per square inch. The test used perpendicular recording heads and disc media based on current production technology, so products may not be far off.

When Seagate ships platters with a 421Gbps area density, it would be able to offer iPod drives of up to 275GB capacity. Notebook drives would contain up to 500GB, while desktop systems could ship with single-drive storage of 2.5TB. Which brings me to Time Machine, Apple's backup and restore technology in the forthcoming Leopard operating system. Time Machine requires a dedicated non-partitioned hard drive. Drive capacity of Macs is rising rapidly. My G3 used a 6GB drive; the G4 came with a 40GB drive. My current iMac has 250GB. I'm thinking that I'm going to need a very BIG external hard drive for backup.

Energy Saver: Your computer's energy consumption has a noticeable impact on your electricity bill. Apple's interactive calculator <<http://www.apple.com/environment/resources/calculator.html>> shows how much money you can save each year by using the Energy Saver feature on your Mac. Note that all calculations are approximate and based on computer use during active-on and sleep modes.

Very interesting: To trigger Apple's built-in dictionary in almost any system window, including TextEdit,

Safari and Mail, hold down the command-control-d keys with the mouse over the word to be checked. The built-in dictionary will pop up.

Blow Up: The good news: Blow Up offers the highest quality image enlargement available. It scales image up to 10000% — 10 times in each dimension — with no jaggies, halo, or fringe artifacts. Check out the examples at <<http://www.alienskin.com/blowup/filters/apple.html>>.

The bad news: Because Blow Up is an automation plug-in, it only works with Photoshop and Photoshop Elements. And it costs \$199. Online delivery is available at the Alien Skin website: <<http://www.alienskin.com>>. Blow Up is also available worldwide through stores, catalogs and resellers.

Starbucks and Apple announced the availability of the "Starbucks Hear Music" catalog on the iTunes Store, giving iTunes users the ability to preview, buy and download a wide variety of Starbucks popular Hear Music titles. Hear Music produces a wide range of albums showcasing new and classic artists including the well-known Artist Choice series, Opus Collections, Debut Series releases by emerging artists, as well as new works from major artists. Starbucks Hear Music offerings will be available in a special new Starbucks Entertainment area within the iTunes Store and will include a wide variety of popular content as well as playlists created specifically for iTunes. "We're excited to work with iTunes to add a significant new digital experience to the innovative buying experience we've been offering in Starbucks locations for more than 10 years," said Ken Lombard, president of Starbucks Entertainment. "Many of our customers want to listen to our music on their iPods, and now that will be easier than ever." ☒

Mac 911

Solutions to your most vexing Mac problems

Restoring sidebar entries

I accidentally removed the Computer entry from the Finder sidebar. How can I get it back? — Nathan Parker

It's easy enough to lose things in the sidebar — drag them out, and they disappear in a puff of smoke. Thankfully, they're easy to replace. Choose Finder: Preferences, click on the Sidebar tab, and enable Computer. Your computer will reappear in the sidebar. Want to add other items to the sidebar? Just select them in the Finder and press Command-T.

Smarter backup burning

I've got a smart folder in the Finder to track files created or modified after a certain date. I would love to be able to burn the contents of this folder to a disc for backup. But it looks as though it contains only aliases. Is there any way to burn the actual files to disc? — Victor Navone

You can do it, if you use Automator in league with a burn folder. First, in the Finder create a burn folder (File: New Burn Folder.) Next, grab a copy of Johan Carlsson's Get Smart Folder Contents Automator action (macworld.com/1461). Install this action and then create the following workflow:

1. Get Smart Folder Contents. From the pop-up menu, select the smart folder that contains the files you want to back up.
2. Copy Finder Items. Choose the burn folder you just created from this action's To pop-up menu. Assuming you'll always be burning the

folder's contents to disc immediately after running this workflow, click on the Options triangle and enable the Replacing Existing Files option. This will ensure that the workflow copies only truly new files to the burn folder (see top screenshot). Once you've configured the workflow to your satisfaction, choose File: Save As and save the workflow as an application.

When you're ready to copy the current contents of your smart folder to the burn folder, double-click on the app you've created. Insert a blank disc in your burner, and click on the burn folder's Burn button.

You can accomplish much the same thing less conveniently without Automator. Just create a burn folder, open the smart folder containing your recently modified files, and drag its contents to the burn folder. Although the smart folder's contents are aliases, the burn folder will burn the original files to the disc.

Tweaking Pages' templates

Is there any way to change the default paper size and font in Apple's Pages documents? My new documents always open in A4 paper size, and I end up changing them to letter size every time. — David Albrecht

My fervent prayer is that a future version of Mac OS will allow you to save individual Page Setup configurations for each application — A4 in Pages, US Legal in Keynote, and so on. Until that happens, you have to hold out hope that the application in question provides a way to modify its

templates and save those modifications. Fortunately, Pages does.

For example, if you routinely choose the Business Letter template from Pages' templates sheet, choose it, make the changes you want to its font and Page Setup settings, and choose File: Save As Template. Give it a name you're likely to remember — My Business Letters, for example — and click on Save. The template, complete with your new font and Page Setup settings, will be saved to the My Templates folder and will appear when you click on the My Templates entry in Pages' templates sheet.

A roomful of zoom

Recently, I attended a workshop where the presenter was using Keynote. When he wanted to show something on his screen in detail, he was able to zoom in on the cursor. Do you know how he did this? — Greg Larson

My guess is that he used the Universal Access preference pane, like so:

Launch System Preferences and click on the Universal Access preference pane. In the Seeing tab, enable the Zoom option and click on Options. In the sheet that appears, set the Maximum Zoom slider to 2 and leave the Minimum Zoom slider where it is. Enable the Only When The Pointer Reaches An Edge option at the bottom of the sheet and click on Done. Next, in the Keyboard Shortcuts tab of the Keyboard & Mouse pane, make sure you've enabled all the Universal Access shortcuts.

Continued on page 18

Mac 911

When you're ready to highlight something on screen, press Command-option-equal sign (=). Your Mac will zoom in by a factor of 2x, with the cursor in the middle of the magnified area. To move around, simply drag to an edge; the screen will scroll in that direction (see middle screenshot). To zoom out, press Command-option-minus key (-). To toggle zooming on and off, press Command-option-8. You can customize all of these keyboard commands in the Keyboard Shortcuts tab of the Keyboard & Mouse preference pane.

Slimming Mail's IMAP messages

Sometimes, when I'm using Mail to check my IMAP e-mail account for one brief text message, I have to wait while a message with a huge file attachment downloads first. Is there any way to look at just the headers before Mail downloads entire messages? — Tony Sturges

Mail won't allow you to download just the headers. But it will let you download your messages without their attachments.

To do this, select Preferences: Accounts and select your IMAP account. Click on the Advanced tab. In the Keep Copies Of Messages For Offline Viewing pop-up menu, choose All Messages, But Omit Attachments. From now on, Mail will download just the messages. To retrieve attachments, you will have to click on the Save button in the messages that contain them.

For POP accounts, you can ask Mail to prompt you before downloading messages over a certain size. To do so, select the POP account, choose the Advanced tab, and enter a value in the field that reads Prompt Me To Skip Messages Over X KB. When a message comes in that exceeds the size you've set, Mail will ask you whether you want to skip it.

I do wish Mail was a bit more flexible in this regard. Let's say you've set up a schedule to download your mail every hour and you're not sitting in front of your computer when it starts. If you don't respond to Mail's prompt within 15 seconds, it will go ahead and start downloading messages even if they exceed your size limits. Entourage, on the other hand, allows you to download a portion of any message that exceeds a certain size. This means you can peruse the subjects at your leisure offline and then choose exactly which messages you want to download.

Covering your tracks

I'd like to delete specific, saved Google search entries without having to reset Safari. Is there a way to delete such cached entries individually? — Via the Internet

It's possible to cherry-pick the searches you'd like to clear, but frankly, it's a pain in the neck. As Mac 911 forum reader Peter Weber explains it, this is what you have to do: quit Safari, launch the Property List Editor from the Developer Tools (an optional installation found on the Mac OS X Installer disc), open /Library/Preferences/com.apple.Safari.plist, and look for recent searches in the RecentSearchStrings. Once you've found that list, select each entry you'd like to remove and click on the Property List Editor's Delete button. Close the window and click on Save in the sheet that appears, and the entries you deleted will no longer appear in the list of searches.

If you'd rather save your neck, there are a couple of ways to clear out old searches en masse.

The first is to click on the magnifying-glass icon in Safari's Google search field and choose Clear Recent Searches. This prevents prior searches from appearing as autofill entries. Firefox includes a similar feature. Just control-click on the Google search field and choose Clear Search History.

To complete the cleansing, open Safari: Preferences, click on the AutoFill tab, and click on the Edit button next to the Other Forms entry. Choose .google.com from the sheet that appears and click on Remove. This zaps any Google autofills.

If you want to prevent Safari from recording your searches in the future, turn on Private Browsing (found under the Safari menu). With Private Browsing on, Safari won't add Web pages to its history, it will automatically remove items from its Downloads window, it won't create autofill entries, and it won't add searches to the Google search field.

Sunk by sync

In iPhoto, I can create perfectly synchronized slide shows in which the images and soundtrack match up perfectly. But when I try to export such slide shows to a QuickTime movie, the pictures and sound fall out of sync. What can I do? — Craig Crossman

The solution is to not use iPhoto. Instead, open a new iMovie project, import your pictures as still images (you can import multiple images by dragging them into the clip bin), adjust their length as necessary (by selecting a photo, clicking on Show Photo Settings, and adjusting the tortoise-hare slider), and add a soundtrack to one of the program's two audio tracks. When everything is to your liking, export the project as a QuickTime movie. Choose File: Export, click on the QuickTime tab, and select an export setting from the Compress Movie For pop-up menu. Or send it to iDVD by choosing Share: iDVD.

If you've already exported your iPhoto slide show as a QuickTime movie and you'd rather not re-create it in another application, drag the movie into a new iMovie project. Place it in the timeline, and choose Advanced: Extract Audio to place the movie's audio into a track of its own. Once you've got the audio separated,

you can pull it back into sync (see bottom screenshot). Again, choose File: Export to save the synced-up movie in QuickTime.

You can do something similar with GarageBand 3: launch it, choose New Movie Score from the opening window, name your project, and click on Create. In the resulting project window, drag the movie into the Video track to separate the video and audio (into the Video and Video Sound tracks, respectively). You can now nudge the audio track to get it into sync. Choose Share: Export Movie To Disk when you're done.

Tip of the month

Launching at the Office: Every time I install Microsoft Office, it insists on putting all the Office applications in the Dock. I have quite enough applications there already, thank you. There's only one Office application I do want there: the Project Gallery Launcher (/Applications/ Microsoft Office 2004/Office/Project Gallery Launcher).

The Project Gallery Launcher streamlines two daily tasks: First, I often use templates — my electronic letterhead, fax cover sheet, or a blank document — to start new documents. The Launcher makes the process of picking a template and starting a new document simple. Second, I can easily look up recent Office documents from

the Launcher, which has a preview pane that lets me view those documents by date (Today, Yesterday, This Week, Last Week, and so on). Best of all, it's really quick.

For years I ignored the Launcher, but now that it's living in my Dock, I use it much more often. And since picking a template requires opening the Launcher anyway, why not keep it close at hand? — K. M. Peterson

Tools of the trade

The Extended Network: You've got an iMac in your home office, a Mac mini nestled into your living-room entertainment center, and a MacBook that follows you around the rest of the house. For you, the days of one computer and one Internet connection are over — you want access to the Web from wherever you are. Here are some tools that will help.

Wireless Router With a wireless router you can blast your cable or DSL connection throughout your house. Countless companies, including Linksys, Netgear, Belkin, and D-Link, offer wireless-G routers for around \$50. Or you can go with the higher-priced (\$199) — though more easily configured — Apple AirPort Extreme Base Station.

AirPort Express Base Station If you opt for the AirPort Extreme Base Station, pick up one of Apple's \$129 AirPort Express boxes. It will extend

your wireless network by linking it to the larger Extreme Base Station. This used to be a confounding process, but with the latest AirPort software, it's a cinch.

Power-Line Adapters If wireless won't reach, try a pair of HomePlug adapters. These devices plug into your home's power outlets and transfer data across your electrical wiring, and they're available from a variety of vendors, in both USB and Ethernet flavors, for around \$120 a pair.

USB Network Adapter You'd like to network your TiVo receiver, but it has no Ethernet port. No problem. Pick up a USB network adapter from your favorite Mac accessories vendor. These small devices, which cost a little over \$20, offer a USB connector on one end and an Ethernet port on the other. Plug a USB device into the connector, and string an Ethernet cable between your router and the adapter. With a little fiddling, that device should appear on the network.

A Hefty Hunk of Cat-5 Cable Sometimes, only wires will do. When you need to add an old computer to a network, keep some Category 5 Ethernet cable on hand; a 25-foot cable should do. 🗑️

Share Keystone MacCentral with other MACaholics

Name _____

Address _____

City _____ State ____ Zip _____

Home Phone _____ Day Phone _____

E-mail Address _____

Date _____

Is this Renewal or New?

How did you hear about us? _____

Dues for one person are \$20/yr.

Family or Corporate dues are \$30/yr.

To join Keystone MacCentral, mail this form with your membership dues (payable to Keystone MacCentral) to:

**Keystone MacCentral
Membership Chair
305 Somerset Drive
Shiresmanstown, PA 17011**

Keystone MacCentral meetings are held at 6:30 p.m. on the 3rd Tuesday of the month at Gannett Fleming, 209 Senate Avenue, Camp Hill.