

## Leopard on a DVD

by Gary Brandt

The February meeting of Keystone MacCentral will focus on Leopard training. No, we don't mean that you can expect to see some big cats. The Leopard we will concentrate on is the code name for the new Mac OS X 10.5 that has been out for a few months. Apple announced over 300 new features in Leopard, so those of you who may be considering the upgrade will want to see how some of them work. And those who have already installed Leopard can expect to see a few things you may not yet have encountered.

We will watch a video training DVD covering some of these topics. The video will explain the new interface of Mac OS X 10.5 that differs in some significant ways from 10.4 and earlier versions of OS X. One major enhancement is Time Machine, technology that Apple created to allow you to perform automatic backups in the background as you work.

Later in the video, an overview is given of the iLife '08 applications and other key applications that most of us frequently use. Safari, iChat, Address Book, and Mail have all been enhanced with additional features that might just lead you to upgrade.

The DVD provides a lot of information, so we will probably continue with it at our March meeting. As usual, the February program will be preceded by a short business meeting and a question and answer period. We hope to see you there. **D** 

Meet us at

**Gannett Fleming** 

Gannett West Building 209 Senate Ave � Camp Hill

## Tuesday, February 19, 2009, 6:30 p.m.

Attendance is free and open to all interested persons.

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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 © 2008, Keystone MacCentral, 305 Somerset Drive, Shiresmanstown, PA 17011.

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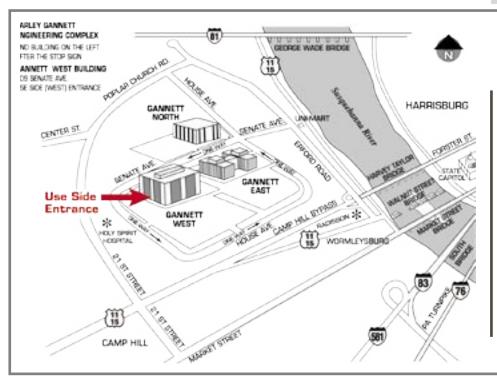
#### Keystone MacCentral Essentials

### Meeting Place

Gannett West 209 Senate Avenue Camp Hill

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#### by Linda J. Cober

# **President's Corner**

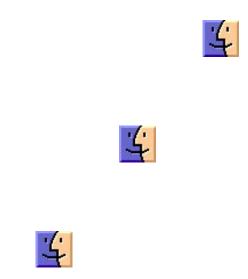
**To** borrow a phrase from Survivor, the tribe has spoken. Whether this pleases you or not, you have a large cat, specifically a Leopard, in your future. You may decide to upgrade your current Mac to Leopard or wait until you buy a new Mac, but eventually your old cat will give way to the new feline from Apple. Your best strategy to make the transition as easy as possible is to become familiar with Leopard so you know what it offers and what it demands. Thus, our February and quite possible our March meeting will focus on Leopard as we show you the ins and outs and the bells and whistles of this new cat. I hope you will join us on February 19, weather permitting, and prepare yourself to be an informed adopter of Apple's newest feline.

February also finds us preparing ourselves for the upcoming election of KeyMac officers. According to our bylaws, we need a nominating committee to put together a slate of officers for the election in May. I hope some of you members will consider running for office, but if you do not want to do that, you can help us by volunteering to be on the nominating committee. I will be asking for volunteers for the nominating committee at our meeting and hope you will have given some thought to my request before then. This is one way you can help your club without making a major commitment of time, so please seriously consider volunteering.

On another topic, I also want to offer you some tips to make your computing experience more enjoyable. Here's a warning from Jon at SmallDog.com. It seems that one of the most common problems with laptops coming in for repair is a damaged optical drive caused by folks who lift and carry their laptops with only one hand. The torque from lifting and holding the laptop parallel to the floor can squeeze together or pinch the optical drive slot, making it unusable The repair is very expensive and is not covered by AppleCare. Mac-Books need the whole bottom case replaced because the bezel is not a separate part, and the labor costs soar, as the innards of the machine must be put into another case. This tip caught my eye because I often carry my MacBook with one hand, but after learning this, I will be much more careful in the future! Jon also adds that it may be most cost effective to fix a squeezed drive by using a flathead screwdriver to pry open the slot while being very careful not to damage the actual drive mechanism. Seems to me that this unfortunate situation is a perfect illustration of 'an ounce of prevention being worth a pound of cure!'

As you know, we offer tutorials at our meetings, and you may even win a free download of a tutorial kindly donated by macProVideo.com. Here's yet another way to learn more about your Mac. This is a tip from a SmallDog customer named Jeff Marcotte via Charlie@smalldog.com. (Can you tell I read all their newsletters?) Log on to ScreenCastOnline.com, which uses iTunes podcasting abilities to provide users with a list of video tutorials accessible through the Free Shows tab in the right menu of iTunes. Once you see the list of video tutorials, you can download the ones you choose to your podcast list. You can then watch the tutorials as you would a TV show that you downloaded from the iTunes store. These tutorials are free. You can also sign up for a paid membership and receive the tutorials with bonus footage in High Definition quality. Just as with any podcast, iTunes can be set to download the tutorials automatically, so you can view them whenever you have time.

Hope you will make time to join us at KeyMac on February 19 and learn more about Leopard!



# Keystone MacCentral Minutes

## January 15, 2008

### Business Meeting

President Linda Cober explained that our January program would include a demonstration of how to move files from one Mac to another, using her friend's laptops. Webmaster Linda Smith noted our widget pick of the month she had posted on our web site. Secret NotePad is a widget that allows you to store notes with password protection. Jim Carey wanted to make sure that the training DVDs that we plan to feature at upcoming meetings would work on our club's MacBook Pro. We previewed a small portion of the DVD on Keynote.

## Demo

We started the demo on moving files from one laptop to another using Ruth Friedman's laptops. Ruth wanted to move her photo and music files to the new laptop. Tom Owad booted the old Mac into Target Disk mode and connected it to the new laptop with a FireWire cable. The old Mac's hard drive showed up as an icon on the new laptop's desktop. Tom then dragged the iPhoto and iTunes libraries from the old Mac to the new Mac's desktop. He renamed the existing iPhoto and iTunes libraries on the new Mac so as not to replace the files that Ruth already had on the new Mac. Tom then dragged the old libraries into the appropriate folders on the new Mac. The iPhoto and iTunes libraries on the new Mac then had to be rebuilt to recognize the newly installed files.

To move all of your files to a new Mac, you could drag the entire user Home folder to a new Mac. You might experience problems if you had wanted to use a different user name on the new Mac.

Tim Sullivan handled the second portion of the demonstration on transferring files. He recommended either SuperDuper! or Carbon Copy Cloner if you want to make an exact bootable copy of a hard drive including the invisible files of the System software that allow booting. Putting the cloned hard drive file on another partition or external FireWire drive would allow bootup from that volume.

If you still have your copy of our May 2004 newsletter (also available on our web site), you can find a description

of Synk X 4.2 that Tim had placed in the Software Review section. The latest version is Synk Standard which runs on Tiger and Leopard. You set up a folder you want to copy from and a destination folder for the copied files. A feature that Tim likes is the preview window that appears where you can control just what is copied. Tim showed us how he uses Synk for backup purposes. He noted that a version of SuperDuper! compatible with Leopard has been released.

As a final demo, Tom demonstrated setting up Apple's Mail for Ruth on her new Mac, which she had purchased used from a friend. There was an existing e-mail account on the laptop that prevented Ruth from getting e-mail through her service provider. Tom changed the settings to work with her ISP. He also opened Address Book to change the card of the prior owner to reflect Ruth's name and email address. This should allow Ruth to use Mail to send and receive e-mail with Mail.

### Q&A & Comments

Tom Bank asked about saving old e-mail messages out of Netscape. When you first set up Apple's Mail, there is an option that allows for import from Netscape or other e-mail programs. The suggestion was made for Tom to delete old messages he no longer needs to save before doing the import.

An older Airport Extreme base station only supports one printer but the newer base station should support multiple printers. Elizabeth Reinecker asked about alphabetizing bookmarks in the Firefox browser. There is an Organize Bookmarks... option in Firefox that should help. If you look there, you will find some quick tips for searching using the Firefox location bar. For instance, you can type wp <search term> in the location bar to look for that term in Wikipedia.

A question was raised on how to print directory listings from a Finder window in OS X. One method would be to change the window to List view - select all of the items you want to copy - and paste into a TextEdit document formatted as plain text. If you know of a better method or a program to do this, please let us know at the next meeting. Tom Owad demonstrated how to use Terminal to get a list of files in a folder with their complete file paths. It appears that most of us are not using Terminal to do that type of task.

Someone asked about syncing Macs with iSync. Jim Carey noted that a recent Mac Observer podcast (#130) had covered

syncing. Abigail Schearer reported a problem with frequent quits of Mail when she tries to reply to e-mail. If she updates her OS, Mail would likely also be updated. That may help with her problem that no one else at the meeting had encountered in their use of Mail.

The January meeting was held during Macworld San Francisco so we went to Apple's web site to check on the latest news. Apple had announced the MacBook Air so we watched a guided tour of its features. Its light weight might be great for road warriors. Apple has built in more trackpad gestures. Apple also announced Time Capsule for automatic wireless network backup to a 500 GB or 1 TB hard drive.

### Program Notes

We watched Macworld Vodcast 24 in which Macworld Senior Editor Rob Griffiths offered some tips on Leopard. In Safari 3.0 (which also runs in Tiger) you can drag an icon from the Finder to the upload button of a Safari upload dialog box to start the upload. In the 10.5 Application Switcher, you can now drag a file to a program icon to start that application to open the file. Rob pointed out some new keyboard shortcuts in Leopard. The Path Bar can be made visible in Finder windows.

In Vodcast 28, Rob showed how to use Quick Look to preview fonts in Leopard. He noted that Get Info is now available in Open dialog boxes.

## Raffle

Elizabeth Reinecker was our latest winner of a free download from macProVideo.com's vast selection. She received a gift certificate with the code for the free download. Congratulations!

#### by Mark H. Anbinder

# Flying? Carry On Your Batteries!

Macworld Expo attendees (and anyone else) flying to or within the United States will be affected by a new set of rules implemented recently by the U.S. Department of Transportation that limits how and where air travelers can carry spare lithium batteries for their electronic devices. Effective 01-Jan-08, the rules prohibit carrying spare batteries in checked luggage, and limit spare batteries brought aboard in carry-on luggage.

The DOT recommends carrying electronic devices with you (we do, too, considering how often our checked luggage has gone astray), but if you wish to pack an electronic device in your checked luggage, you may pack it with its battery installed — as long as the device is securely turned off. You must protect the terminals of spare batteries in your carry-on bags to avoid short-circuits; the DOT provides how-to tips for safely covering battery terminals, such as using the plastic slip-cover that may have come with the battery, or electrical tape over the terminals.

The battery guidelines specifically refer to cell phone and laptop spare batteries, but apply to all lithium and lithium metal batteries, also common in digital cameras and camcorders, portable DVD players and video games, etc. Check the DOT Web site for specific limits on the allowed lithium content per battery, which is especially important if you have an extended-life battery.

Concerns about Sony-made laptop batteries overheating, leading to battery recalls by Apple, Dell, and several other

laptop manufacturers in 2006, make this the most rational and least arbitrary restriction on passenger baggage we've seen affecting air travelers in recent years. (For details on that recall, see "Apple Recalling 1.8 Million Laptop Batteries," 2006-08-26.)



Now that winter and, at times, hazardous driving conditions are here, it may become necessary to cancel a meeting on short notice. The board of Directors will make a decision and update our Web Site

#### http://www.keystonemac.com

by 3:00 p.m. on the day of the meeting.

#### by Kevin van Haaren

## Chumby: The Beanbag Computer

I seem to be on some secret marketing list of people who paid off their cars recently. Chumby Industries claims they offered me the opportunity to buy a Chumby because I signed up to be notified when the Chumby would be available to purchase before the general release, but I know better. With car money burning holes in my bank account I purchased a Chumby (in stylish Steve Jobs black) for \$179.95.



**Chumby 101** — So what the heck is a Chumby, anyway? Take a beanbag about the size of a grapefruit and stuff it with a 3.5" color LCD touch screen, a 350 MHz CPU, 128 MB of memory, Wi-Fi, a motion sensor, a squeeze sensor, two USB ports, a pair of speakers (and headphone jack) and you have a Chumby.

Sure, sure, but what does it do? The Chumby is a dedicated widget machine. It loops through widgets you've selected from the Chumby Web site. Each widget plays for a configurable amount of time, and, just like Dashboard widgets in Mac OS X, they can do many things. Widgets for weather, RSS feeds, webcams, Twitter, clocks, calendars, and Magic 8 balls are already available, and more are being developed all the time.

Access to the Chumby's widget library and future software updates are free. They're paid for via the occasional advertising widget that shows up randomly on the Chumby. To date, I think I've had only a handful of ads show up each day. All have been Flash-based movies, but the movies do not play automatically. You have to hit the play button to start them.

But widget playing is just part of what the Chumby can do. It can also act as a passable iPod dock, charging your iPod and playing music from playlists through its built-in speakers or headphone jack. It's even a dual-alarm clock, making it appropriate for the bedroom. **Chumby Usage** – When your Chumby arrives, the first thing to do after removing it from its burlap bag packaging (perfect for carrying the Chumby around, and environmentally appealing as well) is select the appropriate charm to attach to it. Why? Don't ask me. It comes with several, and for my black Chumby I went with the flame charm.



Next you turn the Chumby on and join it to a Wi-Fi network. Thankfully, it supports both WEP and WPA. At work I joined it to a 40-bit WEP access point (not our official company one, which requires more extensive authentication than the Chumby supports.) I did have a problem initially connecting to the WEP access point as it wanted the password in hex instead of ASCII. Luckily, I found a Web page that could convert the password. At home I joined it to my WPA-protected network, which was significantly easier, since the Chumby accepted ASCII input for that password.

Once you have network access, you have to activate your Chumby. This involves creating a free account on the Chumby Web site and linking your Chumby - identified by duplicating a graphical onscreen pattern - to the account.

After activating the Chumby you can add widgets. The Chumby uses "channels" to decide which widgets to play. You can have several channels, each with different widgets. I currently have three channels, through which I randomly cycle throughout the day. I only need to know the San Diego pandas are OK via their PandaCam so many times before I change channels and check in on PolarBearCam. In addition to webcams, I use the Chumby at work to keep track of Twitter, the TidBITS RSS feed, stock quotes, and the latest pictures from I Can Haz Cheezburger and Cute Overload.

To use a Chumby with an iPod, just connect the iPod via a USB cable. Your playlists from the iPod appear on the Chumby's screen, and you can play one or more playlists in random or sequential order while the widgets display. Unfortunately, the Chumby's iPod integration needs a few improvements. If a widget plays a Flash-based video with sound, the Chumby isn't smart enough to pause the iPod, instead merging the sound from the two. Also, pausing the iPod, as I need to do at work when I receive a phone call, is a three-step process: hit the squeeze sensor, tap the Music control, then tap Pause. The Chumby should pause the iPod as soon as the squeeze sensor is activated. I'd also like an option for song titles to be overlaid on the current widget for a few seconds every time the song changes, and it would be nice to be able to enter star ratings for songs.

**Hack the Chumby** – But the real reason I wanted a Chumby was for hacking, and enjoying the results of everyone else's hacks. Everything about the Chumby is open. In a flashback to the days when Steve Wozniak gave away the schematics of his early Apple hardware designs, the schematics of the Chumby are available online. The software is all covered by the GNU Public License (GPL). Chumby Industries even encourages modifying your bean bag (you can see some of the things people have done on Flickr). Of course there are plenty of warnings about ripping open the bean bag violating the warranty, but that does not stop them from providing instructions on how to do it!

The biggest disappointment I have in the Chumby is the choice of Flash as the development environment for widgets. Most widget systems use JavaScript instead, as does Apple's Dashboard. I'd like to take a stab at writing a Chumby widget since widgets can be submitted to Chumby for everyone to use or played from a USB flash drive for personal enjoyment. But Flash seems expensive for a hobbyist developer - Adobe's Flash development package lists for \$699. There are some open source development systems like haXe, but my brief overview didn't reveal if they could work with the sample code that Chumby provides.

With all the Chumby's openness, I'm hoping the annoyances I mentioned, including support for widgets written in JavaScript, will eventually be fixed. Perhaps Chumby Industries will do it, but if not, maybe we'll see the solution from some hacker with an itch to scratch.

by Jonathan Hoyle jhoyle@maccompanion.com http://www.jonhoyle.com

## According to Hoyle... Shaving Sheep and Running Classic on Leopard

With each new release of Mac OS X, Apple sets a new bar for excellence, power and ease of use. Mac OS X 10.5 Leopard is no exception, as this recently released operating system draws raves of praise by even long time PC proponents. However, Leopard also is a milestone in another way: it puts the final nail into the coffin on Classic.

Longtime Mac users have been familiar with Classic, as Mac OS 9 and earlier helped paved the way to where we are today. The Classic environment allowed Mac users to continue to use older applications even within Mac OS X. Surprisingly, even some original applications from 1984 continue to run just fine on Mac OS X 10.4 Tiger, over two decades later. However, with Apple's transition to Intelbased Macintosh computers, Classic appeared to be on borrowed time. With Leopard, it's official: no Macintosh computer running Mac OS X 10.5, either PowerPC or Intel, will run Classic applications.

## Pulling the Wool Over Our Eyes

Well...not exactly.

Just because Apple ceased to support its Classic Environment implementation does not mean you have to delete your old apps just yet. As it happens, there are still a number of options available to the Leopard user who wishes to run these older applications. We will examine three of these: SheepShaver, Basilisk and Mini vMac. The good news is that all three are open source products, so they are absolutely free for you to download and try. Even if you do not find them suitable for your needs, at least you cannot complain about the price. Moreeover, each of these products is cross-platform, allowing you to run them on a Macintosh, Windows, Linux and many other systems. Suddenly, your old Classic apps have renewed vigor, by being able to run on virtually any platform!

Of the three, SheepShaver is the only one which can run PowerPC applications and the only one which can run Mac OS 9 (the other two are 68K emulators). For this reason, SheepShaver is likely to be the one of greatest interest as a Classic replacement. It simulates a Power Macintosh 9500 series computer with a G4 processor board, but it speed is highly dependent upon the hardware it runs on. Depending upon the configuration and platform you deploy it upon, SheepShaver can be slow as molasses or it can be faster than the Classic Environment itself (see PowerPC Tests: SheepShaver vs. Classic below).

Although Basilisk emulates only a 68K Macintosh, do not dismiss this option so quickly without reading its benefits. In particular, its performance on Intel-based Macintoshes is more than double than that of SheepShaver (see 68K Tests: SheepShaver vs. Classic below). If the application you desire to run is fat (that is, contains both 68K and PowerPC binaries), you will have far better performance running it in Basilisk than in SheepShaver. Basilisk and SheepShaver share many source files and both operate and look similar to each other. Basilisk can simulate a Quadra 900 for those wishing to run Mac OS 8, or a Mac IIci for System 7.x compatibility.

Mini vMac is a different pedigree of emulator, essentially emulating only the earliest of Macintoshes. Whereas Basilisk can emulate any 68K processor from the 68020 on upward, only Mini vMac emulates a 68000-based computer. Admittedly, Mini vMac is of extremely limited use, interesting only to the hobbyist wishing to resurrect the spirit of his old Mac Plus. It is included here only because it completes the entire range of Macintosh computer emulation, from the 128K Mac all the way up to the Power Mac G4. Mini vMac is a successor product to the Classic application vMac, which is no longer being developed.

This month's article will describe some of the pro's and con's to each of these three emulators, including running comparative performance tests and step-by-step installation instructions. This last part will be saved for the end, as it is rather technical and only of interest to those who, after reading the review, choose to try it out.

As these are open source projects, you are free to download the source code and build it yourself. In this article, we will focus only the end user perspective of these emulators.

## Baaaaaah Humbug

Before proceeding, it is worth preparing you now for a disappointment. None of these emulators is anywhere in the same league as Apple's Classic Environment. Most notably, these emulators do not allow you to run Classic apps on the Mac OS X desktop as Apple's Classic Environment did. Rather, the experience is more akin to the older Virtual PC, where your entire Classic environment lives inside of a window. It is a rather ironic turn of fortunes: just a few years ago, Windows apps were bound inside a window whilst Classic lived on the Mac OS X desktop; now with Parallels Coherence, the reverse is true on Leopard.

Another unfortunate aspect of moving to any of these emulators is its backward step in OS versioning. Most users of Classic were running Mac OS 9.2.2, the final release of the pre-OS X operating systems. The latest version supported by SheepShaver is Mac OS 9.0.4, meaning that apps requiring 9.1 or later will not run. Nor is this limitation is a temporary one. Mac OS 9.1 requires a Memory Management Unit (MMU), which is not supported by SheepShaver's G4 emulator. The MMU is used for virtual memory, and any Classic apps requiring VM (such as Office 2001) will likewise fail to run on SheepShaver. Gwenole Beauchesne, who maintains the emulator, says that there is no plan to include an MMU since it would likely degrade performance.

Finally, all these emulators are riddled with annoying bugs and limitations. I find myself constantly rebooting Sheep-Shaver, either due to crashes in the application, or because the slightest configuration change involves closing the application down and restarting. This is very much still a work in progress. Unfortunately, the work is not very fast, as the most recent version of SheepShaver was built about a year and a half ago. I have no idea when (or if) the next version will be released addressing these problems.

## Mary Had a Little Classic Emulator

So what does running Classic have to do with being a lamb's barber? No, the name SheepShaver is not some obscure reference to an Austin Powers movie, but rather a play on the name ShapeShifter, an old Macintosh emulator for the Amiga. The current version is 2.3, but this is not informative as the last few releases use this same version number. It is best to look at the modification date, and the latest (official) build is from May 2006. I have found later build by other sites, but this article focuses on the official release.

So...does it work? Absolutely! As this screenshot shows, I was able to get Mac OS 9 running on a Mac Pro running Mac OS X 10.5 Leopard.

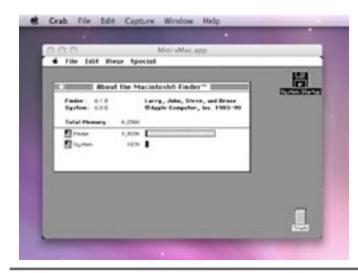


Aside from its lack of virtual memory, I could detect no behavioral difference between the SheepShaver environment and a genuine Mac OS 9-based Macintosh Performance, however, was certainly a factor, as described below. The SheepShaver product itself lacks polish, and easily crashes. It is also very difficult to get files into the Sheep-Shaver environment. Although the my boot hard drive appears on the emulated desktop as a volume named "Unix," it does not see any of the resources on my volume, making it nearly useless. Other frustrating bugs include an error when drag copying a file from the Unix drive onto the SheepShaver desktop. Another alarming bug is on the PowerPC, in which SheepShaver starts up with a false application crash error. All in all, a great deal of promise is seen, but a great deal of work left to be done.



Likewise, Basilisk had many of the same user experience problems that SheepShaver had, although Basilisk did appear a bit more robust. The current release is Basilisk II, with no informative version number associated with it. The release date was May 2006, simultaneous with the Sheep-Shaver release running in Mac OS 8.1

On an emulated 68K machine severely limited the number of applications I was able to try. However, all fat (both



68K & PowerPC) applications I did try ran better on Basilisk than on SheepShaver. Interestingly, both environments are nicely self-contained, and these can be run in parallel with each other without problem.

Mini vMac was updated very recently on November 17th to version 3.0.4. Although it lacks most of the problems plaguing SheepShaver and Basilisk, it also lacks most of its features. The only configuration option made available is in the selection of disks to be added to the running environment. The original vMac allowed frame rate and RAM settings changes, but these were dropped for Mini vMac. Although a fine Mac Plus emulator, its interoperability with the rest of the system needs work.

However, Mini vMac comes with a number of extra utilities.

### Performance

How do SheepShaver and Basilisk compare with the Mac OS X 10.4 Tiger's Classic Environment? To answer this question, I downloaded the shareware Classic application Speedometer 4.0. This application nicely allows tests to be formed in either PowerPC or 68K mode.

So, I divided the tests into two groups: PowerPC tests comparing SheepShaver with the Classic environment, and 68K tests, comparing Basilisk, SheepShaver and Classic. I ran both tests on various hardware, including G4's, G5's and Intel boxes. The results did not change when switching between Tiger and Leopard.

Speedometer 4.0 normalizes all of its tests to the speed of a Quadra 605. Thus, if a test result value is 2.50, this means that this test ran two and a half times faster than would be expected from a Quadra 605. Although Speedometer offers a myriad of test options, I limited to the basic "Performance Test" suite of 4 scores: CPU, Disk, Graphics, and Math. Of these, the CPU score is the most important and indeed the most informative of the tests, following closely behind by the Math score. The Disk score was much less informative, as it tended to be the same across all emulators and Classic. The Graphics test could not even be run at all on Tiger's Classic environment, as it requires the monochrome capabilities long since dropped from modern Macs (although the SheepShaver and Basilisk were able to emulate this). For this reason, I will concentrate exclusively on CPU and Math scores, denoting them as a pair, so that "123.45 / 67.89" means that the CPU score was 123.45 and the Math score was 67.89. It is also worth noting that the same test performed many times will yield different scores, typically with 5% of each other.

Speedometer 4 requires a 68030 processor or higher to operate, so no speed tests could be run on Mini vMac. I do not view this to be terribly inconvenient, since those interested in Mini vMac are not likely to be worried about

performance. However, casual use of Mini vMac shows it to be no slower than Basilisk in most cases, and in some instances faster.

### PowerPC Tests: SheepShaver vs. Classic

For these tests, I configured SheepShaver to its defaults, setting the RAM to 256MB and a hard drive file of 512MB. The ROMs used are from Apple's freely available Mac OS ROM Update 1.0, and Mac OS 9.0.4 (the latest supported by SheepShaver) installed on the Classic hard drive. The Classic environment is the one used on Mac OS X 10.4.11 with the usual defaults (itself running Mac OS 9.2.2).

To my great surprise, SheepShaver's PowerPC performance (relative to Classic) depended greatly on the hardware it was running. On a Powerbook G4 1.5 GHz system with 1GB of RAM, SheepShaver ran approximately at half the CPU speed of Classic, scoring around 32 / 1300 to Classic's 78 / 1700. Moving to a two processor system, much more interesting results are found.

On a Power Mac G4 with Dual 1.25GHz processors and 1 GB of RAM, SheepShaver narrowly (but consistently) outperformed Classic by nearly 10%. At first, I thought the result was a fluke, but repeated tests bore this out. The screenshot below shows a typical example of SheepShaver beating Classic with a score of 80.835 / 3208.840 to 74.029 / 3176.391.



Possibly, SheepShaver's G4 emulator is a simple "passthrough" on this machine, possibly taking advantage of the second processor.

However, running the same test on a Power Mac G5 Dual 2.0GHz with 2.5 GB of RAM yielded less impressive results. Despite the G5 system nearly double the speed of the aforementioned Dual G4, Classic's performance CPU scores remained about the same, whilst SheepShaver fell to half speed once again. In this screenshot example, Classic scored 71.649 / 3289.094 and SheepShaver dropped to 36.426 / 1717.396.



Apparently, SheepShaver's G4 emulator is optimized for the G4 but not so optimized for the G5. Also, the advantage of a second G5 processor did not seem to help SheepShaver as it did in the G4 case.

The numbers go from disappointing to downright miserable when we move to the Intel platform. Although there is no Classic environment on Intel-based Macs, one might expect that SheepShaver's performance might improve due to its faster Xeon processor. Unfortunately, the opposite is the case: without a native G4 processor to pass through, all PowerPC assembly calls must be emulated on an Intel machine. On a Mac Pro 2 x 2.66 GHz Dual-Core Xeon with 1GB of RAM, a machine which should be about 2.5 times the speed of the aforementioned Power Mac G5, a typical SheepShaver score is shown here as a mere 6.464 / 1107.541.



In other words, a Mac Pro which would otherwise be double the speed of a G5 ends up running SheepShaver at less than one-tenth the CPU speed. The only bright spot found here is in the Math score, which remains the same between the G5 and the Mac Pro.

The conclusion to this is rather mixed: SheepShaver's best performance is on a Power Mac Dual G4, running at about half speed on other PowerPC's. But how likely are G4's going to be upgraded to Leopard anyway? Apple's minimum requirement for Leopard is an 867MHz G4, but recommends a G5. Early tests suggest that PowerPC performance drops by about 10% when switching from Tiger to Leopard (while Intel systems see virtually no change). For this

reason, G4 users who still need Classic are probably less likely to upgrade to Leopard, and thus do not need Sheep-Shaver. G5 users who do make the jump will find their Classic apps falling to half speed. Intel users (who never had Classic to begin with) are not likely to be attracted by SheepShaver's abysmal Intel performance.

### 68K Tests: Basilisk & SheepShaver vs. Classic

For these tests, SheepShaver and Classic remain configured as they were for the PowerPC tests. Basilisk was configured to a reasonably generous level for a 68K machine: 68040 processor setting, 32MB of RAM and a 250MB hard drive running Mac OS 8.1 (the last operating system to support 68K machines). To be as normalized with Speedometer as possible, I used the Quadra 605 ROMs for this configuration. Speedometer was set to run 68K tests.

On the Power Mac G5 configured as above, Classic's 68K emulator weighed in with a score of 35.660 / 310.186, which is about half its CPU score on PowerPC and 1/10th the Math score. Since SheepShaver was using the same 68K emulator found in Mac OS 9, I was expecting a similar ratio to its PowerPC score, something in the 18 / 170 range. Instead, the results were much lower: 3.384 / 114.992 as shown in this example.

Basilisk fared worse, with a mere 3.026 / 58.766 score. Why these numbers are out of proportion is hard to explain. The only thing I can guess is that the G4 instructions most used by the 68K emulator must be ones which SheepShaver and run more slowly.

I then moved to the Power Mac Dual G4 system, the system which SheepShaver outperformed Classic in the PowerPC tests. On this platform, Classic's 68K scores remained relatively unchanged with 34.004 / 309.321, SheepShaver showed more than 2X improvements with 8.992 / 257.930, and Basilisk declined to 2.243 / 45.722. From these results it is clear that Basilisk offers no benefit to the PowerPC user, as SheepShaver running in 68K mode outperforms it. Note also that SheepShaver's Graphics test ran an order of magnitude faster than Basilisk's. With Basilisk's limitation to Mac OS 8.1 and lower, and lack of free access to 68K ROMs, it is hard to imagine why a Power Mac user would be interested in Basilisk.

Again, surprises await us as we change platforms. Running these tests on a Mac Pro, Basilisk begins to shine, weighing in at 14.298 / 197.060 over SheepShaver's 0.599 / 15.140.

The reasons for this become clear when you realize that SheepShaver is performing double translation: It is running a 68K emulator on a G4 emulator on an Intel machine, whilst Basilisk can go directly from 68K to Intel. This makes Basilisk's CPU more than 20 times faster than SheepShaver's, and its Math 13 times faster. But this is not the surprising piece. The real news is that Basilisk's 68K emulator is faster than SheepShaver's G4 emulator, with a CPU score more than double. In other words, Intel Mac users interested in performance are better off finding 68K versions of their software to run on Basilisk than to use PowerPC versions on SheepShaver. For example, Microsoft Office 4.2.1 (containing Word 6, Excel 5 and PowerPoint 4) will run better in Basilisk than in Sheep-Shaver, whereas the PowerPC-only Office 98 cannot run in either emulator (due to virtual memory incompatibilities).

## Installation: SheepShaver

SheepShaver emulates a PowerPC-based Macintosh; particularly, a Power Macintosh 9500 series computer. Although PowerPC-based Classic operating systems contain 68K emulators themselves, SheepShaver does not. It emulates a G4 processor (minus the MMU). If you wish to emulate a 68K-based Macintosh, you should use Basilisk or Mini vMac.

Unlike what you might have heard, all of the items needed to run SheepShaver are freely (and legally) downloadable. You are not required to buy an old Macintosh and run some obscure ROM-reading application to use it. There are, however, three separate pieces to the puzzle that you will need to assemble to get SheepShaver operating. The first piece is the SheepShaver software itself, which can be downloaded from its web site.

The second piece needed is a compatible Macintosh ROM file. This is commonly found inside the System Folder as a file named Mac OS ROM. Unfortunately, not all such files are compatible with SheepShaver. If you have access to System Folders for Mac OS 8.5, 8.5.1 or 8.6, look for this file and you have a decent chance of it being compatible. The ROM files from Mac OS 9 do not appear to be supported. However, one simple way to acquire a compatible ROM file is to obtain it directly from Apple. There are three free Macintosh updaters, each containing a SheepShaver-compatible ROM file, which may be downloaded from these locations:

Mac\_OS\_ROM\_Update\_1.0.smi.bin

Software\_Updates/English-North\_American/Macintosh/ iMac/

English-North\_American/Macintosh/System/Mac\_OS\_ 8.6\_Update/

These links download installers containing packages called tome files. Inside these tome packages are the Mac OS ROM files you will need to extract. The Classic application TomeViewer can easily extract it, and you can download this program from here.

The ROM files described above are called New World ROMs, as they were a new direction Apple began to take with regard to ROM distribution beginning with Mac OS 8.5. SheepShaver also supports some Old World ROMs as well, although these must be read from a ROM reader. For a detailed discussion on supported ROMs, visit here.

The third and final piece needed to run SheepShaver is the system software itself. Depending on the ROMs used, you can go as far back as System 7.5.3, or as high as Mac OS 9.0.4, or anything in between. The choice of System 7.5.3 as the minimum was not an accidental one, as this was the last bootable version of the Macintosh operating system distributed freely by Apple. (Beginning with System 7.6, Apple charged for OS updates.) Users lacking access to any version of a Macintosh OS can at least be able to download this version. System 7.5.3 comes as 19 disk images, downloadable from this location.

A System 7.5.5 updater is free for System 7.5.3 users, and can be downloaded from this location.

Users of New World ROMs, however, must boot with Mac OS 8.5 or later. This is not likely to be a major inconvenience, as most people interested in using SheepShaver are long-time Classic users who probably have access to a later version of the system software anyway. In our example, we will be using the ROMs extracted from Mac OS ROM Update 1.0 and a Mac OS 9.0.4 boot CD.

Regardless of which ROMs and System Software is used, SheepShaver emulates a Power Macintosh 9500 series computer. The 9500 was presumably chosen as it was one of the last Macintosh computers produced by Apple which could boot in System 7.5.3, as well as Mac OS 9.

Once you have all three parts, we are ready to begin. Opening up the SheepShaver folder, you will find two confusingly named applications: SheepShaver and Sheep-ShaverGUI. Why these are two separate applications instead of one is beyond me. Essentially, SheepShaverGUI is nothing more than a preference file generator for the main SheepShaver application. This is certainly a poor Macintosh User Experience (the first of many), as typical Macintosh applications simply provide a Preferences menu to adjust these settings. In any case, we first launch Sheep-ShaverGUI and get this window.

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This ugly window is where you add your volumes that the emulated Mac sees. We begin by creating a blank hard drive. Click on the Create... button and you will see this dialog:

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Just when you thought that the windows couldn't look any uglier, this God-awful dialog appears. The decoupling of folders on the left and files on the right is rather bizarre, something only a Unix geek could love. Navigate to the location where you want to create this hard drive. Unfortunately, the default is root, not something more reasonable like the SheepShaver folder.

You might suspect that to get to a folder on your desktop, you merely need to double-click the Desktop / item, or even possibly the Desktop Folder / item. Sadly no, you must instead navigate through Users /, then whatever user-name you have, and then Desktop / . Similarly, you will not find your mounted volumes inside Desktop / but instead in Volumes /. In case you are wondering, ./ does nothing (as it simply refers to itself), whilst ../ refers to the parent folder (unless you are at root, in which case ../ acts just like ./ ). Don't ask, it's Unix.

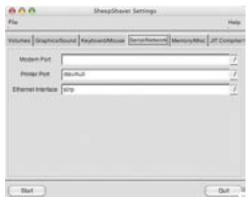
The default size is set to 40MB, but for a Mac OS 9 installation, you will need to make it much larger. I recommend making it about 500MB. Put the name of your hard drive file in the Selection: / text field and press OK. If you have a Mac OS 9 image file, perform the same file-picking contortions to point to it (no, this file picker does not remember where you were previously, so you always start at root). If you have a Mac OS 9 boot CD, you can place it into the CD ROM drive now.

Note: It is important to verify that your Mac OS 9 CD can indeed be used with SheepShaver. Some CD's will boot but fail to install because they were intended for installing on specific Macs and not accept as valid the Power Mac 9500 (the hardware SheepShaver is emulating). Other CD's may be general Mac OS 9 installers but fail to boot, as Sheep-Shaver seems to have problems booting with Mac OS Extended (HFS+) CDs, whereas Mac OS Standard (HFS) CD's boot fine. Finally, you may have a valid installer on a Mac OS Standard CD, but the CD itself is not bootable. These are all frustrating problems that you may encounter, and it may require some tinkering. I for example, had to boot with my Power Mac G4 system CD, but use a separate disk image to install. If you run into difficulties, email me and I may be able to help.

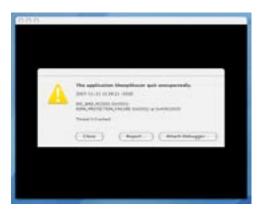
Now switch to the Memory/Misc pane. Set your MacOS RAM Size (MB) to at least 256, and click on the ROM File's Browse... button to navigate to your Mac OS ROM file. Your dialog should now look something like this:

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Finally, click on the Serial/Network tab, and set your Ethernet Interface to "slirp" (this will pass along your Mac's internet access to SheepShaver). This dialog should look like this:



There are other settings available to adjust as well. I prefer my emulated screen resolution to be 640 x 480, but you may adjust this and other settings to your liking. Once you have finished, press the Start button. If you are running on a PowerPC-based Macintosh, you may see the following scary message:



Just press the Close button and ignore it. This false crash message is just one more of the ending bugs found in SheepShaver. Intel-based Macs do not seem to have this bug.

Assuming all went well, the emulated Mac will boot up and you will be asked to erase your newly created hard drive:

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Go ahead and initialize, and then run your Mac OS 9 installer. Once you are finished, your desktop may look like this. Once you are done, your desktop will look something like this:

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The Unix volume is the root level of your Startup volume.

## Installation: Basilisk II

Basilisk emulates a 680x0-based Macintosh; either a Mac IIci or a Quadra 900, depending on whether you wish to use System 7.x or Mac OS 8.x. Its processor choices range from 68020 to 68040. If you wish to emulate a 68000-based Macintosh, you should use Mini vMac (see below), or a PowerPC-based Mac use SheepShaver (see above).

As with SheepShaver, Basilisk requires three pieces to be assembled: the Basilisk software itself, the ROMs from a 68K machine, and System Software compatible with the chosen ROMs. The part is easy, as the Basilisk software can be downloaded from its web site.

The ROMs, however, are a bit trickier. Unlike the case of New World ROMs available on Power Macintosh computers, the ROMs for 68K Macs were never officially distributed as software by Apple. Legally, one is expected to somehow

acquire a 68K Mac and run one of the ROM reader programs to obtain this ROM file. An excellent tutorial on this procedure is available here.

However, a number of people have already done this and put these ROM files on the internet. Shrewd Google searches for such text as "IIx IIcx SE30 rom" and the like can yield links to more than a dozen such ROM images. Although I do not endorse or condone the distributing of copyrighted ROM files, it is likely that Apple has greater concerns than these 20-year-old ROM files being posted.

The System Software version needed to run Basilisk depends upon the ROMs used. A Mac Plus, for example, could use System 3.0 up through System 7.5.5, so this is the range of availability using Mac Plus ROMs. Despite what the documentation claims, I have not had much success emulating a Mac Plus, or anything below a 68030-based Mac. For this reason, I recommend using Basilisk for the Mac IIx and later class ROMs for Basilisk, and consider Mini vMac for earlier Macintoshes.

As noted in the SheepShaver installation section, System 7.5.3 was the last freely available operating system for the Mac, and the aforementioned link can be used to access this. The Emaculation web site, a site devoted to Macintosh emulation issues, has a pre-configured System 7.5.5 starter disk that can be used with Basilisk, downloadable here.

With later Mac II style ROMs, Basilisk can run Mac OS 8.1, the last 68K supported operating system. My recommendation is to begin with this starter disk to install the operating system onto your hard drive file. Once that is completed, than you can insert a Mac OS 8.1 installer and upgrade your emulated Mac.

If you have been following along with the SheepShaver installation procedure, you will see that Basilisk behaves nearly identically. You begin by launching the BasiliskIIGUI application to configure the preferences used by the BasiliskII application. We create a hard drive file large enough for Mac OS 8.1, say 250MB. If your Mac OS 8.1 installer lives on a disk image, add that as well; otherwise place your Mac OS 8.1 CD into the CD drive. We will also save time by including the System 7.5.3 starter disk available from Emaculation.com. Just as with SheepShaver, I will adjust the Serial/Network settings to use the oddly named "slirp" Ethernet Interface, and change my video resolution to 640 x 480 in the Graphics/Sound pane.

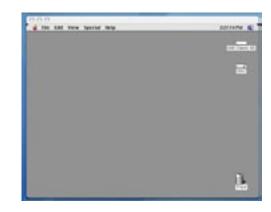
Finally, we move to the Memory/Misc pane, where we make our final modifications. For RAM, 32MB seems reasonable for the class of machine we are emulating. For Mac Model ID, we select the Quadra 900 model, since we are using the Quadra 605 ROMs and wish to run Mac OS 8.1. Likewise, we set the CPU type to 68040, and point to the ROM file we have:

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We can now click on the Start button to boot up our emulated Mac. You will no doubt notice how much faster Basilisk is in booting up than SheepShaver. Much of this has to do with the fact that System 7.5.3 is a much smaller operating system than Mac OS 9 is. You should now see this:

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Initialize and install Mac OS 8.1 on your hard drive. When you are finished, your window will look something like the following:



At this point you are ready to use Basilisk.

## Installation: Mini vMac

Mini vMac emulates a 68000-based Macintosh, such as the Mac Plus, SE and 128K. To emulate a later 68K-based or Power PC Mac, use Basilisk or SheepShaver (see above). In this example, we will be emulating a Mac Plus with 4MB of RAM.

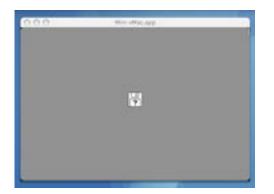


Compared with SheepShaver and Basilisk, Mini vMac is a much simpler application to get started. First, you go to the web site to download the application:

Without doing anything else, you can launch the application and get reasonable information of what needs to be done next.

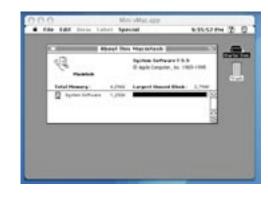
What you must do next is obtain the Mac Plus ROM file, rename it vMac.ROM, and place into the same folder as the Mini vMac application. (Please read the Installation: Basilisk section for hints on how to obtain Mac Plus ROMs.

Once you have done this, you can relaunch Mini vMac and you will see the following:



This is essentially how a Mac Plus appears upon startup with no System software. Fortunately, Mini vMac offers a much better user experience than do SheepShaver and Basilisk, and so the next step is easier. Under the File menu, the Open Disk Image... allows us to select a boot image to run in our Mac Plus.

Hard drive files created within Basilisk can be used with Mini vMac, provided the boot system is no greater than System 7.5.5 (the latest which can be run on a real Mac Plus). If we use Emaculation's starter disk image downloaded from here.



You will also want to download some of the utilities available for Mini vMac, which nicely enhance your experience:

< http://minivmac.sourceforge.net/extras/index.html>

In addition, it is worth downloading the original vMac, as its bundle contains items useful for Mini vMac, such as a System 6 startup disk: http://www.vmac.org

## Conclusion

None of the options we have discussed is a truly suitable replacement for the Classic environment. If you use Classic applications continually and interactively, then your best bet is to stay with Mac OS X 10.4 Tiger on the fastest G5 system you can obtain. If your needs are much more modest and are willing to keep your expectations low, then perhaps one of these emulators may be acceptable to you.

Unfortunately, the performance of these emulators are inversely proportional to their usefulness. On Intel-based Macintoshes, the 68K emulators outperform the PowerPC emulator, although 68K emulation is far less useful. And PowerPC emulation performs best on exactly those machines least likely to be upgraded to Leopard: G4 systems.

The obvious question is thus: Why do you still need to use Classic? Most Classic applications have native OS X equivalents available today, so if it is a matter of paying the upgrade fees, you will find this to be a preferable alternative to emulation. If it is simply to run some older games or utilities which you have grown accustomed to, Sheep-Shaver and Basilisk are your only solution.







We can get to a reasonable working position;

#### by Tim Sullivan

# **Rumors and Reality**

#### **Around Apple**

• Compact Discs measure about 4 5/8 inches (12 cm) across. I just received a data recovery program on a 3 inch (8 cm) mini disc. I'm not planning on dropping it into my slot loading drive any time soon.

Apple has filed for a patent for collapsable collar that would accept the smaller disk and then be inserted in a reader. Together the smaller disc and collar could reduce production costs and mailing costs.

• During the installation of a new OS the user needs to pick a keyboard layout that depends upon the language being used. Rephrased a bit, different countries use different keyboard layouts. The most common physical arrangements of keys on keyboards in Western countries are based on the "QWERTY" layout (including closely related variants, such as the French "AZERTY" layout). However, in countries that do not use the Western alphabet, the keyboard layout is often very different.

An icon can be placed on the menu bar to indicate which language and therefore which keyboard is being used.

Apple has submitted a patent application that turns each key on the keyboard into a small illuminated billboard. Each key would contain an array of organic light emitting diodes (OLEDs) and use an application specific integrated circuit (ASIC) placed inside each key to turn on and turn off the respective diodes.

The respective ASICs would be controlled by signals originating from the software application in which the user is currently working and by the selected language locale. As a result, the users always have current and accurate information in front of them about what will happen when a particular key is depressed on the keyboard, and there is no need to memorize what actions particular key depressions will cause.



The concept extends to pressing a combination of keys. For instance, pressing option would cause the "8" key to show a bullet "•", while pressing the shift + option would illuminate the 8 as the degree sign "o". All the keys on the keyboard would be affected simultaneously.

• The iPhone is tied to its service provider. AT&T Inc. is Apple's exclusive wireless partner in the U.S. Apple gets an undisclosed cut of monthly service fees for the iPhone, which is typically sold with two-year contracts from wireless providers in the U.S. and Europe.

About 3.75 million iPhones were sold last year. AT&T Inc. said that about 2 million iPhones had been activated. Taking sales and activation in Europe into account, some estimates show almost 1 million iPhones have "disappeared."

By unlocking (modifying the software within the device) the iPhone, other service providers may be used. Unlocked iPhones generate 50 percent less revenue and as much as 75 percent less profit than those tethered to service contracts. We're talking over \$300 million monthly in lost revenue.

**WiebeTech** has developed a pretty slick little connector, the USB DriveDock v4 that sells for \$50. Plug it into the computer's USB port and your hard drive into one of the connector's other ports. It accepts 2.5" and 3.5" SATA or IDE/PATA drives.

The thing that makes this really great is that you can remove an internal hard drive from your computer and plug it directly into the DriveDock – no need to install it in an enclosure. Replace that tiny, wee, little drive



with something more respectable and upload the data from the little drive. No fuss, no bother.

**Extend your wireless signal** If that short antenna also means short reception distance, you can invest in a bigger antenna or do it yourself for about 5¢.

<http://www.crunchgear.com/2007/11/20/how-to-extend-your-wireless-range-for-5-cents/>

**"no Apple slot in drive"** The British newpaper *the Daily Mirror* distributed a free DVD in a Sunday edition. The Ecodisk was both biodegradable and half as thick as a normal DVD. While it certainly sounds like a greener future, there was one drawback. Apple slot loading drives would not eject the disc. Even if they were able to partially eject it, the "cd drive thing does not work anymore." The only warning Mac users got was printed on the label: "no Apple slot in drive."

As might be expected, the manufacturer of the EcoDiscs is taking no responsibility, blaming Apple for using drives that don't use an ejection mechanism approved by the DVD standards regulator, the DVD forum.

**CheckFree Corp** provides Remote Deposit Capture, a technology that lets people scan checks through their home

computers and deposit them electronically. The technology been used mainly for businesses for several years.

Now, if your bank offers it, the service is available for any customers that want to be able to deposit checks without having to go to the bank.

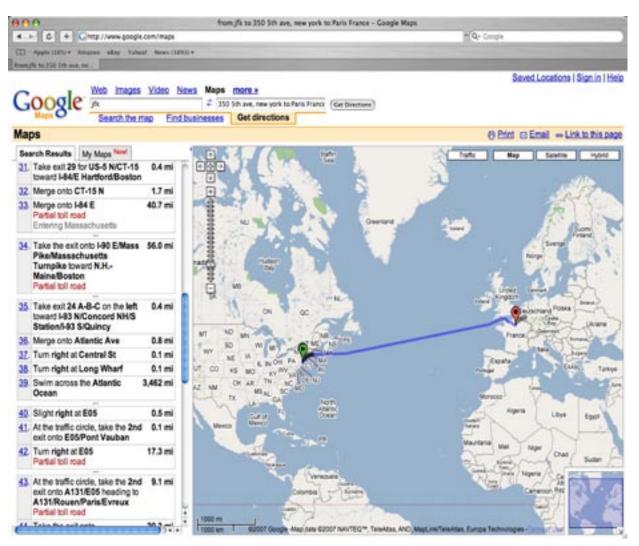
Customers need a scanner, a computer, and an Internet connection. They go to their home banking site, enter the amount of the check, scan both sides, do a quick review and submit it to the bank. Banks will have the option to add their own fraud protection to make sure bad checks aren't being cashed. Normal processing times will apply.

(As a brief aside, there is legislation in place that allows check recipients to submit sufficient information to the banking system to get their money and then to destroy the check. This is supposed to become the norm – saves a lot money. I became aware of this when I was incorrectly debited \$80. There was no way for me to determine any information about the check except its number and amount. The bank was able to determine that Sears took my money. The bank did reimburse me.) **Google Maps locations:** road map programs such as Google maps or GPS maps are really great. I've often wondered how they work. They are kind of fun when the roads are newer than the map. And they don't always indicate that the river is crossed by a ferry rather than a bridge.

But the finer detail such as the precise location of my house on my street is sort of by guess and by golly. Mapquest persistently places my house a block away from where it is really is.

Google allows registered Google users in the U.S. and Australia to move incorrect markers for their homes or businesses to the correct locations. The program requires a user to search for his home address to find an arrow that will have information about the location. After clicking edit, a user then can move the arrow to the correct location and save it. When anyone else searches for the address, they will see the edited marker at the correct place.

While moving your residence to the correct location may be fun, moving your business to the correct location will make it easier for people to find your business. And happy customers are a good thing.



# February Software Review



#### AppDelete 1.1.1 http://reggie.ashworth.googlepages.com/ Requires OS X 10.3 or greater. Freeware.

AppDelete will delete the application you choose and any associated items (files and folders) that belong to that application. Now you will no longer have to hunt through your system to find these items and delete them manually. Or worse, just let them sit on your Mac forever even though the application is long gone!

To run AppDelete just drag the application or folder containing the application you want to delete onto the AppDelete icon. After doing this AppDelete will search your system to find the associated items. They will be moved inside of a folder in the trash named "AppDelete" with the name of the app you dragged onto the icon. You can inspect this folder if you like before emptying the trash.

AppDelete also has a "Undo" feature and keeps a log of every item that was deleted. And AppDelete is freeware!

## **Apple Updates**

#### iWeb 2.0.3 01/30/2008

### System Requirements

– OS X 10.4.9 or later

This update addresses compatibility with Mac OS X.

## Keynote 4.0.2

### 01/29/2008

System Requirements

- OS X 10.4.10 or later

This update primarily addresses performance issues while playing or exporting presentations.

#### Pages 3.0.2 01/29/2008

System Requirements

- OS X 10.4.10 or later

This update addresses compatibility with Mac OS X.

## Numbers 1.0.2

#### 01/29/2008

System Requirements - OS X 10.4.10 or later

This update addresses compatibility with Mac OS X.

#### iTunes 7.6 for Mac 01/15/2008

System Requirements

- OS X 10.3.9
- OS X 10.4.9 or later

Rent and download your favorite movies with iTunes on your computer or directly to your living room on Apple TV. Enjoy rented movies in sizes up to 720p HD with surround sound on your Apple TV and sizes up to DVDquality on your computer. Transfer your rented movies from iTunes to your iPod or iPhone and enjoy them on the go.

Also, purchase and download your favorite TV shows, music, and more directly on your Apple TV. Effortlessly transfer purchases made on Apple TV back to your computer with iTunes.

#### Front Row 2.1.2 01/15/2008

System Requirements

- OS X 10.5 or later
- iTunes 6.0.4 or later
- iPhoto 6.0.2 or later

This Front Row update provides for bug fixes and improved iTunes compatibility.

### iMovie 7.1.1 01/15/2008

System Requirements

- OS X 10.4.9 or later
- iMovie 7.1

This update addresses issues when publishing movies to a .Mac Web Gallery, improves overall stability, and addresses a number of other minor issues.

QuickTime 7.4 for Leopard 01/15/2008

System Requirements

- OS X 10.5 or later

QuickTime 7.4 addresses security issues and delivers:

• Numerous bug fixes

• Support for iTunes

## QuickTime 7.4 for Tiger 01/15/2008

System Requirements - OS X 10.4.9 or later

### **By Christopher Breen**

QuickTime 7.4 addresses security issues and delivers:

- Numerous bug fixes
- Support for iTunes

## QuickTime 7.4 for Panther 01/15/2008

System Requirements - OS X 10.3.9

QuickTime 7.4 addresses security issues and delivers:

- Numerous bug fixes
- Support for iTunes T

# Mac 911 Solutions to your most vexing Mac problems

New year, old business Before I leap into the business of a new year, it's time to clean up issues remaining from the year just departed. Along those lines, reader Jim Schoster follows up on last year's Broken iDisk Syncing with this:

Thank you for your helpful article about iDisk. Where do I find the .sparsebundle file to delete?

If you click on your synced iDisk and press Command-I to bring up the Info window you'll find the path to this file listed as:

your user folder/Library/FileSync

and then a folder with a cryptic series of letters and numbers. Inside this folder is the sparsebundle file.

Reader Rishi Patel got in touch about a remark from a recent Macworld Podcast.

I was listening to your podcast about Macworld's holiday gift guide and I heard the guest say he was able to upgrade his laptop's RAM for \$27. I was wondering what site that was, or if you know of a good website to find cheap RAM. I have a PowerBook and am looking to upgrade the RAM.

Take a gander at the Ramseeker website. Here you'll find RAM prices from a variety of popular memory vendors. Just look in the Ramseeker Mac section and choose your Mac model from the Select Macintosh Model pop-up menu.

**Update:** Dan Frakes, the guest who performed the upgrade on his laptop, wrote in to also suggest DealRAM, which is where he found the RAM he mentioned.

Finally, in reference to a question regarding incessant prompting for passwords in February's Mac 911 column, reader N.L.C asks about Keychain Access' Keychain First Aid:

Lots of my Mac friends have this problem since we started our iPhone service. I was initially elated to see a fix, but I can't find anything on my PowerMac G5 running 10.5.1 that says "Keychain First Aid."

Rereading my answer I see that I didn't tell you where to find that command. My apologies. You'll find it under the Keychain Access menu (the menu where you traditionally select the About and Preferences commands). Increasingly Apple and other developers are placing helpful commands in this application menu yet many old-time Mac users forget to look there.

While I have your attention, this seems like an opportune time to remind you that if you select Help in an application running under Leopard, type the name of the command you're looking for, and then select that command's name in the resulting list under the Help menu (commands are identified by the small menu icon next to them), a floating blue arrow appears that points to the location of that command.

Intel, backup, and drive formats Reader Michael Jones has walked through the fire and emerged a more enlightened soul. He seeks only a tiny bit of additional information to complete his quest for an Intel-compatible Time Machine backup drive. He writes:

### Mac 911

I have been a Windows user all my life and my Acer laptop hard drive crashed. I replaced my machine with a new Apple laptop, which I love. DriveSavers recovered my photos to an external hard drive that could work with both a Mac and a PC. I was able to download all my pictures onto my new Apple, but they told me I needed to reformat the drive to be optimal for backing up a Mac. What is the best format for the Mac OS and what resources can I use to help me do it?

I'm going to assume that your new Apple laptop is really a new Apple laptop, meaning that it's a MacBook or Mac-Book Pro, both of which contain Intel processors. For a Time Machine drive connected to an Intel Mac, Apple recommends that you use a GUID partition type. (Those with PowerPC Macs should use the Apple Partition Map scheme.)

To impose this partition type on the drive, launch Disk Utility (found at / Applications/Utilities), select the drive in the resulting Disk Utility window, and click the Partition tab.

From the pop-up menu labeled Current, choose the number of partitions you'd like on the drive (1 Partition is perfectly acceptable if you want to create just a single volume). Now click the Options button. In the sheet that appears, choose GUID Partition Table. Click OK to dismiss the sheet. Click Apply and the drive will be reformatted with the GUID partition scheme.

Note: When you reformat that drive, you erase everything on it. Be sure you've copied everything you want off that drive before you do this.

Another note: You'll go through this same process if you're formatting a drive that was originally used with a PowerPC Mac for use when booting an Intel Mac. For example, I had a FireWire drive that I used with my Power Mac G5.

In the early days of Leopard, I wanted to install OS X 10.5 on this drive so I could take the new OS for a spin without committing my Mac Pro's internal drive to it. Although my Mac Pro could use this drive for external storage, when I attempted to install Leopard on it, I was told that, as it was connected to an Intel Mac, I must use the GUID partition scheme. This I did and the installation proceeded in hitchless fashion.

#### Converting video for iPod

I have videos on my Mac in QuickTime and WMV formats and I would like to load them onto my iPod touch. Drag and drop doesn't want to work. The error message says that the videos are not viewable on the iPod. Is there a way to convert these files to an MPEG-4 file?

Sure. For QuickTime movies you'll find a solution within iTunes. Just drag your QuickTime movie to the Library entry in iTunes' Source list and it will appear under the Movies heading. Select it there and, from the Advanced menu, choose Convert Selection for iPod/iPhone. Once you've invoked the command, iTunes will do exactly as it promises and convert the movie to an H.264-encoded MPEG-4 video file, playable on your iPod.

Windows video files can't be converted for playback in iTunes. Apple's \$29 QuickTime Player Pro in league with Flip4Mac's free Windows Media Components for Quick-Time can do the job, however. After upgrading QuickTime to the Pro version and installing WMCfQT, open the movie in QuickTime Player, choose File -> Export, and in the Save Exported File As window that appears, choose Movie to iPhone from the Export pop-up menu. Your file will be saved as a .m4v file, suitable for playback on your iPod.

[Macworld 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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