July 2007
Double Click
Main Meeting Report

(If any Double Click member is interested in helping out with the news-letter, please contact one of the Double Click officers.)

Our July meetings included the usual "Beginners' Session," the Q&A session and the main presentation. In addition, the July meeting ended with our monthly prize raffle.

Special Announcement

A new computer for Double Click

Double Click has acquired a new Mac portable for use at our meetings. The July meeting was the debut of our new MacBook Pro 15-inch Intel Core 2 Duo 2.33 GHz Macintosh. (Many thanks to Gene Braun and the management at the Apple Store-Mayfair for their help in obtaining this "retired demo" computer for Double Click at a very reasonable price.)

Special raffle for our "retired" PowerBook G4

With the new Mac portable in hand, Double Click is ready to offer our previous portable, a PowerBook G4, to the membership via a special "Super Raffle." This Mac is the 12-inch screen size "aluminum" PowerMac featuring a G4 867 MHz CPU, (upgraded to) 640 MB of RAM, 40 GB hard disk drive, an Airport Extreme wireless card and a "combo" optical drive. It is running OS X 10.4 (Tiger). The following link shows the technical specifications of the 12-inch PowerBook G4:
http://support.apple.com/specs/powerbook/PowerBook_G4_12-inch.html

The computer is in very good condition and will make an excellent addition to your Mac family as your first portable computer or as a second computer for backup in case your main Mac is "acting up."

Here is how the special raffle for the PowerBook G4 will work:

During the next three Double Click meetings (August, September and October), Double Click members will be able to purchase raffle tickets for the computer for $5 each. The raffle drawing for the computer will occur at the end of the October meeting if a total of at least 60 raffle tickets have been purchased by then. (If less than 60 tickets, the raffle time period will be extended.) The winner of the raffle need not be in attendance during the ticket drawing. Members can purchase as many tickets as desired… the more tickets you purchase, the greater your chance of winning the raffle.

The fine print: Double Click, Inc. reserves the right to amend these conditions without prior notice.

Safe Mode

Great! You just installed some new software, and now your Mac freezes on start up. Restarting doesn't help. Now what?

One approach would be to locate your system software CD or DVD—you do know where it is don't you?—and use it to start up your computer. Insert the disk and restart, holding down the "C" key. Then rather than installing system software, go to the Utilities menu, and choose *Disk Utility* from the menu. This will bring up Apple's Disk Utility application which will allow you to repair any damage to the OS X file system and to repair permissions.

If you have a bootable volume connected to your Mac—say, an external hard drive with a bootable backup of your entire hard disk—you can start up from this volume by holding down the **Option** key upon restarting and then choosing this volume to start up from. Then you can run *Disk Utility* from this startup volume.

Mac OS X offers a couple of other methods. We discussed the "Safe Mode" (or "Safe Boot") at the July Beginners SIG, which is summarized here. The Safe Boot discussion was based on using Mac OS X, version 10.4 ("Tiger"). At the next meeting in September, we'll explore the "Single User Mode."

Safe Boot Mode

As you use your Mac over time, you'll probably install some third party software. Some of this software may install of components (known as Kernel extensions) that operate deep within the operating system and must be running in the background all the time.

Such software usually loads and runs every time your start or restart your computer without you ever being aware of it. If something goes wrong with one of these components, you may end up with a startup problem or a

problem when using your Mac. It's not always clear what the problem is or how to turn off the offending software.

For those of you who used Mac OS 9 and earlier, you may remember that there was a special way to avoid loading system extensions, those special pieces of software (sometimes called Inits, or initialization software) that loaded at startup time and added extra functionality to the way your Mac operated. At times, they could also wreak havoc on your Mac and cause it to crash. Apple provided a special way to avoid loading all non-Apple system extensions at startup by holding down the **Shift** key. There's something quite similar in Mac OS X.

Apple provides a special way to boot into Mac OS X called "Safe Mode." Getting into that mode is called performing a "Safe Boot." A Safe Boot temporarily disables most third-party items (as well as several Apple products). In Mac OS X 10.4 Tiger or later, it also disables any login items. (Login items are programs or documents that are opened when you log in to your Mac. They are listed in the "Login Items" tab of the Accounts system preference pane.)

By turning off all these items, you can eliminate many potential glitches. If the problem you were experiencing stops after a Safe Boot, you have some important clues as to what the culprit is.

To perform a Safe Boot, follow these steps:

1. Shut down your computer, don't just restart. This assures that there's nothing in your Mac's memory from the last startup. Choose Shut Down from the Apple menu or press the power key and click Shut Down in the dialog that appears.

2. Press the power key to turn your Mac back on.

3. As soon as you hear the startup chime, press the Shift key and hold it down until the spinning gear or gray Apple logo appears in the center of the screen.

In a few moments you'll see the words "Safe Boot" on the startup screen if you're using Mac OS X 10.2 through 10.3.9. If you're using Mac OS X 10.4,

"Safe Boot" will show up within the login window. Your Mac will complete the startup process, **which will likely take longer than usual.** Taken together, a Safe Boot can work around issues caused by software or directory damage on the startup volume. To leave Safe Mode in any version of Mac OS X, restart the computer normally, without holding any keys during startup.

Here's what happens during your boot into Safe Mode:

Hard drive is checked. During the boot process, your hard drive's file system is checked for problems. The same checks were run as if you ran the *Disk Utility* program.

Login screen brought up. After booting, the login screen appears, and you must log in here, even if you have Automatic Login turned on because you are the only user of your Mac.

Kernel extensions turned off. Kernel extensions add a variety of features to the core operating system, and a ton of them get loaded at start up time. To see a list of them, go to System>Library>Extensions folder. There may even be some in your Library>StartupItems folder. As we saw at the July Double Click meeting, even a fresh installation of Mac OS X 10.4 installed over 250 files in the Extensions folder. If you're experiencing a crash on startup, perhaps some non-Apple software installer installed a kernel extension that Mac OS X 10.4 didn't like. Starting up in Safe Mode eliminates this conflict by allowing only the extensions needed by the operating system to load.

Fonts are turned off. A corrupted font can be a source of trouble, and it's difficult to tell if there's a problem with one by just be looking at it. Safe Mode turns all fonts off except the Apple-sanctioned ones needed by the operating system. (Turning off fonts is occurs only in Mac OS X 10.4. In Mac OS X 10.3.9 and earlier, fonts are not turned off.)

Font cache deleted. By storing fonts in a cache, the operating system is able to speed up their display. If the cache gets corrupted, problems can arise, so Safe Boot deletes the font cache. In Mac OS X 10.4 only, the font cash is moved to Trash.

Login items turned off. Safe mode prevents any start up items that you've added to the Login Items list. Your items are shown here: System Preferences>Accounts>Login Items list. Again, this only happens in Mac OS X 10.4.

No Finder windows opened. Safe mode also prevents Finder windows from opening.

Some Features Don't Work in Safe Mode

As Apple notes, Safe Mode can be useful for troubleshooting. However, certain Mac OS X features do not work when you are started up in Safe Mode. For example, you can't use DVD Player, capture video in iMovie, use an AirPort card, use audio input or output devices, or use an internal or external USB modem.

Credits

The following sources were used for the presentation on Safe Boot Mode:

- *The Missing Manual, Mac OX X Tiger Edition* by David Pogue
- *Take Control of Troubleshooting Your Mac* by Joe Kissell
- http://docs.info.apple.com/article.html?artnum=107392
- http://docs.info.apple.com/article.html?artnum=107393

September 16 Beginners SIG Meeting

At the September Beginners SIG meeting, we'll explore the Single User mode.

-- Steve Parker

"Q & A" Sessions / Announcements

The July Questions and Answers session (as usual) covered a wide range of topics. A synopsis of the major topic of discussion follows.

Installing Software Updates

As a followup to Steve's Beginners SIG presentation about starting up your Mac in "Safe Mode," it was noted that some Mac web sites recommend that OS X updates be performed under the conditions of Safe Mode. (Perhaps the most prominent web site promoting this is http://www.macfixit.com/, the MacFixIt site.

The reason for doing system software updates under Safe Mode is that such an update is a rather critical process for your Macintosh and should not be interfered with by any other process. Since Safe Mode prevents the loading of some OS X components and Login Items, it provides a "clean" environment for the software update process, resulting in a decreased chance of other software causing conflicts with the software update process.

Here are a few other tips you may wish to follow to help ensure a smooth software update:

1. **Backup important data.** Do this before starting the update. The importance of data backup cannot be overemphasized. If you don't backup, you *will* eventually lose data. Better safe than sorry!

2. **Repair permissions.** Do this before starting the update. Some folks think the there is too much emphasis on repairing permissions, but others say it can help prevent problems. Permissions repair is a benign process, so you may as well do it. So use *Disk Utility* (found in your Utilities folder) and perform a repair permissions on your hard disk drive.

3. **Startup in Safe Mode.** Do this before starting the update. See above.

4. **Use a "Combo" update.** For "major" system updates (like going from OS X version 10.4.9 to version 10.4.10), it may be safer to download the

separate "Combo Update" from http://www.apple.com/support/downloads/ and use it to install that major update instead of relying on the "Software Update" automatic download and install process to perform the update.

5. Don't use your Mac during the update. Again, you want to avoid interfering with all the stuff that is occurring "under the hood" of your Mac during the update process. So don't surf the web, play a game or check your email when you are installing a software update. *This is especially important during the last phase of an update when the system "optimization" is being performed.*

6. Restart your Mac. If your Mac doesn't auto-restart after completing on update, perform a normal (not a Safe Mode) restart now. *Note: The restart process after an update can take longer than normal. Be patient!* Sometimes your Mac will actually auto-restart twice. This is OK.

7. Repair permissions. Do this again after completing the restart. As noted above, some people think this is unnecessary, but it takes just a few moments… consider it preventive maintenance.

Following these suggestion can help you enjoy a glitch-free update of your Mac's software. Attention to these details can prevent a great deal of hassle in the future.

Main Presentation - July

"Computer Networking Basics: Connecting Your Macs to the Max!"

Presented by Marc Wolfgram, Double Click member and Mac consultant.

Getting Started - Some Definitions

Network - A connection of one or more devices and services to each other.

Ethernet - A hard wired network connection protocol - 10/100/1000BaseT.

WiFi - Wireless networking: 802.11B, G, N.

IP Number - An address of something (e.g. 192.168.0.1 - IPv4)

DHCP Network - Dynamic Host Configuration Protocol.

Static Network - Manual, unchanging IP configuration.

Modem - legacy: Telephone, current: DSL or Cable.

Router - A device that connects one or more computers to the internet, often provided within modern modems.

Gateway - Internet connection point the router's IP address.

Domain Name Server - Converts IP numbers to real names. (e.g. apple.com is easier to remember than 17.254.3.183)

Simple Networking

• A single computer, wired high speed internet access
• A Modem (DSL or Cable) connects you Mac to the internet
• AT&T is common DSL provider, Road Runner is Cable
• Majority of all setups are via DHCP or a variation with PPoE (Point to Point over Ethernet)
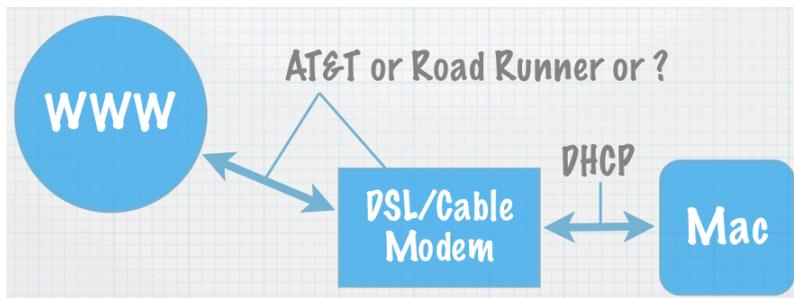
More than one computer?

• Most Modems are also Routers, which handle multiple computers via NAT (Network Address Translation)

• An Ethernet Hub or Switch adds more ports if the modem only has a single ethernet port

• Adding more computers, inculding PC's is easy (your PC mileage may vary)
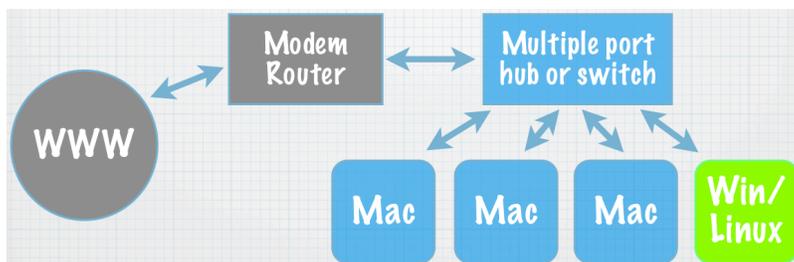
Wireless Networking

Still pretty basic = easy = works
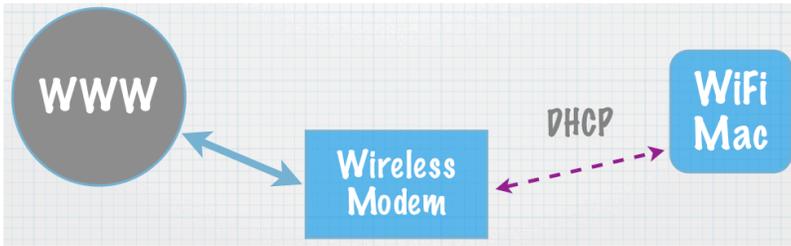
Existing wired networks probably require a WiFi router (you may already have this built in to your existing modem.)
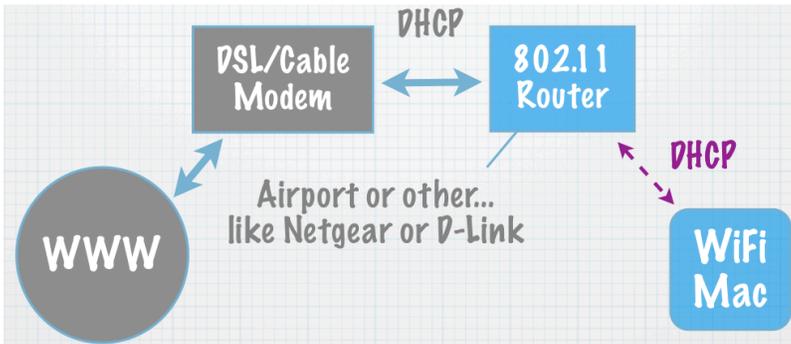
Wireless Trick

Using your desktop Mac's Built-in Airport to share your internet connection with other wireless computers!

Network File Sharing

- In the Finder's Go Menu choose "Connect to Server…"
- Choose "Browse"
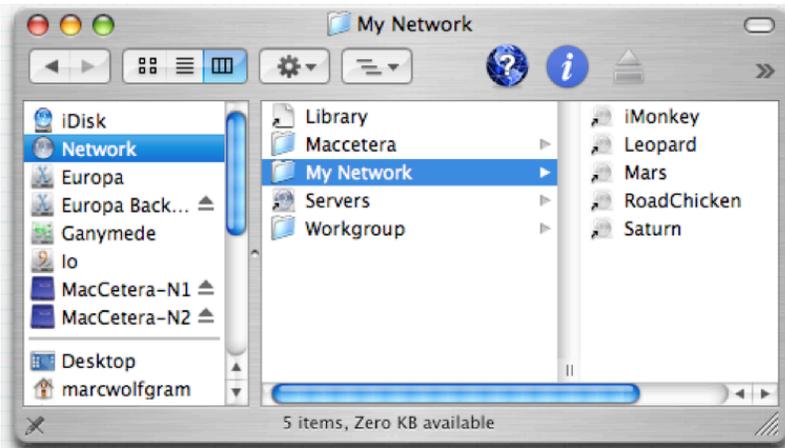
AFP (Apple Filesharing Protocol) between Macs
   afp://my_other_mac.local or afp://192.168.1.2

SMB (Server Message Block) to Windows
   smb://my_crummy_pc or smb://192.168.1.3

FTP (File Transfer Protocol) between Macs and with network
servers (e.g. FTP to your web site - not in today's presentation)
   ftp://my_other_mac.local or ftp://192.168.1.2

AirPort Base Station and Network Setup Guide

If you have an Apple Airport Base Station, Apple provides a neat on-line
set-up guide: http://docs.info.apple.com/article.html?artnum=305293

double Click

August 19ᵗʰ Meeting Preview:

"Double Click's Annual Picnic!"

Hosted by Gene and Susie Braun,
Double Click Members

When August rolls around, seasoned Double Click members know it's time to break out of the lecture hall and enjoy some food and camaraderie at our annual Double Click picnic.

The picnic will be hosted again by Gene and Susie Braun in their Waukesha home's backyard. Bring your own main course, beverages and a side-dish to share. Double Click will provide grills and the fresh sweet-corn for our yearly summer gathering.

The annual picnic is a great chance to really get to know your fellow Double Click members, so pack your picnic basket and invite your spouse or "significant other" to join us!

To help you find your way to the Braun's backyard in the ever-confounding 'burb of Waukesha, check this .pdf file of Directions to the Braun's house or view this Yahoo map or this Google map of their location.

RSVP: Please e-mail Jerry Smaglik and let him know that you will be attending (and how many guests you'll bring).

Check the Double Click website for more meeting information:

www.double-click.org

Made on a Mac.