

# CAMP News

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## *No CAMP Meeting in July*

The Board of Directors have opted to take a July off and "party" in August. So the next regular meeting of the Capital Apple Macintosh Performa User Group's will be held on **Wednesday, September 14, 2005, at 7:00 p.m. in Room 204 at Gardiner Area High School.**

**Delbert Clough** will show us how to buy and sell on **eBay**. Join us for a very practical and rewarding presentation on the ins and outs of **eBay**. You can sell anything at **eBay** and make money at it, too!

On Wednesday August 10, we'll be gathering at **Rob Darby's** home in Winthrop at 6:00 p.m. for our annual summer pot luck supper. Bring an entrée or dessert item. Directions will be provided at a later date,

For more information, please call Sue Westlake at 685-4510.

## **Optimization and fragmentation with Mac OS X**

**Steve Haywood, Adam Tomash & Apple**

Disk optimization is a process in which the physical locations of files on a volume are "streamlined." Files and metadata are re-arranged in order to improve data access times and minimize time moving a hard drive's head.

Files can become "fragmented" over time as they are changed and saved and as the volume is filled, with different parts of a single file stored in different locations on a volume. The process of collecting file fragments and putting them "back together" is known as optimization. However, if a failure occurs during optimization, such as power loss, files could become damaged and need to be restored from a backup copy.

### **Do I need to optimize?**

You probably won't need to optimize at all if you use Mac OS X. Here's why:

- Hard disk capacity is generally much greater now than a few years ago. With more free space available, the file system doesn't need to fill up every "nook and cranny." Mac OS Extended formatting (HFS Plus) avoids reusing space from deleted files as much as possible, to avoid prematurely filling small areas of recently-freed space.
- Mac OS X 10.2 and later includes delayed allocation for Mac OS X Extended-

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formatted volumes. This allows a number of small allocations to be combined into a single large allocation in one area of the disk.

- Fragmentation was often caused by continually appending data to existing files, especially with resource forks. With faster hard drives and better caching, as well as the new application packaging format, many applications simply rewrite the entire file each time. Mac OS X 10.3 Panther can also automatically defragment such slow-growing files. This process is sometimes known as "Hot-File-Adaptive-Clustering."
- Aggressive read-ahead and write-behind caching means that minor fragmentation has less effect on perceived system performance.

**For these reasons, there is little benefit to defragmenting.**

*Note: Mac OS X systems use hundreds of thousands of small files, many of which are rarely accessed. Optimizing them can be a major effort for very little practical gain. There is also a chance that one of the files placed in the "hot band" for rapid reads during system startup might be moved during defragmentation, which would decrease performance.*

If you think you might need to defragment, try restarting first. It might help, and it's easy to do.

If your disks are almost full, and you often modify or create large files, there's a chance the disks could be fragmented. In this case, you might benefit from defragmentation, which can be performed with some third-party disk utilities.

- It appears as if the latest version of **Tech Tool Pro 4** claims to optimize Mac OS X volumes < [http://www.micromat.com/tt\\_pro\\_4/tt\\_pro\\_4.html](http://www.micromat.com/tt_pro_4/tt_pro_4.html)>.
- Alsoft, who makes **DiskWarrior**, is also working on a tool to optimize these volumes < <http://www.alsoft.com/DiskWarrior>>.
- **PlusOptimizer** will optimize Mac OS X Extended disks while running under Mac OS 9.x. In order to optimize these disks (including your Mac OS X startup disk), you should start your computer from a Mac OS 9.x disk such as a Mac OS 9 CD or a Mac OS 9 partition. (Please note that a disk initialized using Mac OS X must have had Mac OS 9 drivers installed for it to be available in Mac OS 9.) < <http://www.alsoft.com/DiskWarrior>>.
- In addition, there is a third utility called **Drive Genius** by ProSoft that appears to do the trick < <http://www.prosofteng.com>> . These are the people that have made Apple's disk drivers for ages so I expect they know what they are doing. **Drive Genius** needs OS 10.2 or later. It includes a bootable CD and the ability to repartition hard drives without reformatting. Also the software can make clones of drives (duplicate) and provides seven other tools including Repair.

# Mac OS X Shortcuts for starting up

Use these shortcuts when you start up your computer.

<u>Action</u>	<u>Shortcut</u>
Prevent automatic login	Hold down the left Shift key and the mouse button when you see the progress bar
Close open Finder windows	Shift key
Start up from a CD	C
Start up from the default NetBoot image	N
Start up a computer connected using FireWire in Target Disk Mode	T
Select a startup disk (on some computers)	Option
Open the CD tray when selecting a startup disk (on some computers)	⌘ + . (period)
Prevent startup items from opening	Hold down the Shift key when you see the progress bar
Start up using Mac OS X rather than Mac OS 9 (if both are on the same volume)	⌘ + X
Eject removable disks	Hold down the mouse button
Reset Parameter RAM	⌘ + Option + P + R
Show console messages (verbose mode)	⌘ + V
Start up in single user mode	⌘ + S
Start up in Safe Mode	Hold down the Shift key immediately after the startup tone, and release when you see the progress bar

# Quick Clicks



**If you have a free hour, it is worth your time to listen to the keynote address that Steve Jobs presented at Apple's Worldwide Developers Conference.**



## Apple WWDC 2005 Keynote Address

WWDC (Worldwide Developers Conference) is Apple's most important annual event for hardware and software developers to receive in-depth information and instruction from Apple's technical architects and engineers.

Watch Apple CEO Steve Jobs kick-off the Worldwide Developers Conference with a keynote address from San Francisco's Moscone West. See the video-on-demand event right here exclusively in QuickTime and MPEG-4.

[Watch the Keynote Address](#)

