

# CAMP News

MONTH YEAR  
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## Special No-July-Meeting Issue

CAMP takes its mid-year siesta this month. Ordinarily, CAMP News would do the same, except that I was unable to publish a June issue and don't like the thought of two dark months in a row. We'll reconvene on August 8 at Adam Tomash' house in West Gardiner for our semiannual potluck dinner, and will get back in the real swing of things in September at which time yours truly hopes to demo Mountain Lion.

## New Storage Options for Mac

**Jeffrey Frankel**

Storage options for Mac users, especially owners of newer machines, have recently expanded. Most significant, in my opinion, is the inclusion of USB 3.0 ports on the new MacBook Pros and MacBook Airs announced at the World Wide Developers Conference early last month.

USB 3.0 has a theoretical transfer speed ten times faster than

its predecessor, USB 2.0, and about six times faster than Firewire 800, the Mac stalwart.

USB 3.0 has been universally available on PCs for the last several years. Manufacturers of external hard drives quickly embraced the new standard, and what had formerly been a marketplace of dirt-cheap external USB 2.0 drives morphed into a marketplace of dirt-cheap external USB 3.0 drives, which are also backwards-compatible with USB 2.0.

But unless one owned a 17" MacBook Pro with an Expresscard slot, or a MacPro with a PCIe expansion slot, Mac users were out of luck. This has now changed for

purchasers of the mid-2012 MacBook Pro and MacBook Air, and presumably for purchasers of future Mac models as well.

Apple, of course, had not been sitting on its hands with respect to ports and peripherals. In July 2011 the company rolled out Thunderbolt transfer technology as a connection medium for external hard drives, monitors and networks. Thunderbolt sports a theoretical transfer speed twice that of USB 3.0, with a potential for even greater speed once fiberoptic technology replaces the current copper cables. All shipping Macs other than the Mac Pro now contain one or two Thunderbolt ports.

The Thunderbolt port replaces, and is backwards-compatible with, the Mini DisplayPort found on predecessor Macs. Mini DisplayPort is an audiovisual port used for connecting monitors and projectors. Thus, one can connect a Thunderbolt-equipped Mac to a DisplayPort- or Mini DisplayPort-equipped monitor. More importantly for me, all the low-cost video adapters that worked with Mini DisplayPort continue to work with Thunderbolt. This allows a Thunderbolt-equipped Mac such as my mid-2011 MacBook Air to hook up to any monitor or projector with a VGA, DVI or HDMI input.

But the primary focus of Thunderbolt is storage, not displays. Although Apple quickly updated its Cinema Display to a new Thunderbolt model, no Thunderbolt hard drives were available at Thunderbolt's debut. This is slowly changing, and Thunderbolt is expected to really take off once Thunderbolt ports start appearing on PCs.

Unfortunately for us mere mortals, the Thunderbolt drives now on offer are for the most part high-priced RAID devices beyond the reach of all but the most well-heeled consumers. The good news is that two manufacturers currently offer more affordable (but still expensive) single-drive models. Seagate has released Thunderbolt docks for its GoFlex line of desktop and portable drives. And Buffalo just recently introduced a Thunderbolt portable, which also includes a USB 3.0 port.

(Buffalo is to be commended for including a Thunderbolt cable with its product. All other manufacturers require the user to supply the necessary Thunderbolt cable, which costs a minimum of \$50.)



Blackberries, Marburger Orchard, Fredericksburg, Texas

But even for the consumer market, Thunderbolt remains a pricey proposition in comparison to USB 3.0. If you own one of the newest, mid-2012, Macs, will you spend upwards of \$250 for a blazing fast 1 TB portable Thunderbolt drive when you can spend just \$110 for a slower 1 TB USB 3.0 drive that is *still* much speedier than anything you ever used before?



*The Buffalo MiniStation 1.0 TB Thunderbolt/USB 3.0 Portable Hard Drive w/ Thunderbolt Cable (l) and the Seagate GoFlex Thunderbolt Adapter (r). Seagate also makes a larger Thunderbolt adapter for desktop drives.*

But there's more. Apple announced two new Thunderbolt adapters at last month's WWDC: a \$30 gigabit ethernet adapter cable, and a \$30 Firewire 800 adapter cable. The latter connector is important for owners of mid-2011 and mid-2012 MacBook Airs, which do not have a Firewire port, and is a truly Big Deal with respect to the mid-2011 Air, which does not have USB 3.0. It's good to know that once the Firewire adapter ships I'll be able to hook up my Air to any of my Firewire drives and not be forced to choose between super-slow USB 2.0 and super-expensive Thunderbolt. ☀

