

Backups Before & During a Shoot to Prevent Downtime or Losing Photos

A Guide for Photographers Using Macs by Lead Technician Doug Peterson of Capture Integration (www.captureintegration.com), July 9, 2008

Overview

During an important photo shoot a photographer will want to protect against two possibilities.

- A physical hard drive failure
- Software problems that prevent the photographer from accessing the photos

In order to protect against these possibilities, you have backups both the capture session (including all captured images), and the operating system / applications. The capture session must be constantly backed up during the shoot, whereas the operating system and applications only need to be backed up before the shoot. Therefore these should be considered two different backups. It is worth noting that a physical hard drive failure is usually preceded by warning-signs such as the sound of clicks coming from the failing drive or incredibly slow system performance and boot time, but can also happen without warning or as the result of physical drop (e.g. a dropped laptop). Software problems can be as simple as a mis-set preference or permission or as dire as a computer virus or file-system corruption; having an easy to access backup of the software and operating system in a known-good state allows the photographer to eliminate the software as the cause of any problems.

Backing up the session folder during the shoot

In Capture One, a shooting session is contained in one folder. The captured photos (“Captures”), Processed photos, Trashed photos, and the settings for each photo (e.g. exposure, white balance etc) are contained in subfolders. There are dozens of ways to backup the session during a shoot. Here is one way using Folders Synchronizer X, which allows both automatic and manual backups of one folder to another.

- 1) Download and install Folders Synchronizer X (www.softobe.com/products/flsy/pp.html)
- 2) Connect an external hard drive. The drive must have plenty of free space; even if you delete a photo from your session, it will remain on the backup.
- 3) Launch Folder Synchronizer X
- 4) Select the Session folder using the top Folder Icon. Select the Backup folder using the bottom Folder Icon.
- 5) Click the “S” in the bottom right and select “Backup” rather than “Synchronization” and “Apply”

NOTE: You can use the Timer to tell Folders Synchronizer X to backup every minute, or every few minutes. This will ensure that the session folder is always up to date. However, when a backup is running Capture One may be sluggish. Therefore it may be preferred to leave the Timer off, and manually push the backup button whenever there is a break in shooting. Your mileage will depend on the performance of your computer and the speed at which you shoot.

- 6) Click the clock icon in the upper right (above the “M”) and turn the Timer On.
- 7) Select the first slot and set the timer appropriately. If you don’t set an End Time, be sure to manually turn off the Backup when the shoot is done.
- 8) Run a quick test: Take a photo, or manually place a file in the session folder and press Backup (or wait for the timer to automatically run a backup, if the timer is on).

Also run a quick test to see if tethered capture still works reliably during a backup. Because the hard drive will be working on the backup, it is possible some systems will not be able to reliably capture tethered while backing up.

Other Options

Apple has introduced their own backup mechanism, “Time Machine” which at first glance is an excellent during-the-shoot backup solution. However, our feeling is that all the CPU and Hard Drive overhead should be restricted to backing up the shoot folder rather than on the entire computer. We suggest using time machine as a personal backup solution, but not necessarily in this specific usage.

Other software options include CronniX (www.abstracture.de/projects-en/cronnix), which has the same set of features as Folder Synchronizer X, but is less user friendly. Programs such as SwitchBack (order.kagi.com), and ChronoSync can do manual backups, but have no built-in timed-backup features.

Another option is a mirrored RAID. In a mirrored RAID, two (or more) physical hard drives are tied together into one virtual hard drive. Only the virtual hard drive is shown in the Finder, while the two physical hard drives are hidden. All data that is placed onto the virtual hard drive is placed on both physical hard drives. A RAID solution would require no attention during the shoot, but is fairly complicated to initially setup. Also, if you accidentally delete a photo, it is deleted from both hard drives.

AppleScript can be used in combination with folder actions to create automatic backups. However, this can be more complicated to setup, and offers no real advantages over the solution outlined above. Information on an AppleScript solution for real-time folder backup can be found at www.apple.com/applescript/folderactions/05.html

Creating a backup of the operating system and applications before the shoot

A program called SuperDuper (shirt-pocket.com, \$28) can be used to create an exact backup including the operating system and applications including license keys and activations.

NOTE: Either of the options below will completely erase everything on the backup drive or computer as part of creating an up-to-date backup. **Be very careful that there is no valuable data on the backup drive.**

Using one computer and an external hard drive

- 1) Before the shoot begins, connect an external hard drive at least as large as the internal hard drive.
- 2) Using Disk Utility, format the backup-to-be hard drive (this will erase anything on that hard drive!)
- 3) Launch SuperDuper.
- 4) Select the internal hard drive as the Source and the backup hard drive as the Target and “Copy Now”

You can test this backup by connecting it to any mac*, holding the option key during startup, and selecting to boot from the external hard drive.

If you need to use this backup during an actual photo shoot, using it externally will mean the system will be slowed down; external drives are not as fast as internal drives. However, it will provide the same functionality and contain all applications/preferences/settings as the original computer. Also note that if you require a firewire port to shoot tethered then you will want an external hard drive that uses USB, or has the option to use either firewire or USB so that if you have to use the backup in the field you will still have a firewire port free.

Using two computers

Although this should work with most combinations of intel based macs, the most reliable way to use this routine would be with two identical model computers.

- 1) Before the shoot begins, connect the two computers using a firewire cable.
- 2) Shut down the computer you want to serve as the backup, and start the computer while holding down T on the keyboard. On the main computer, the backup computer's hard drive will show up on the desktop.
- 3) Using Disk Utility, format the backup computer's hard drive (this will erase everything on that hard drive!).
- 4) Launch SuperDuper.
- 5) Select the hard drive of the main computer as the source and the hard drive of the backup computer as the Target and “Copy Now”.

Now, if the main computer fails, all of the programs, settings, photos, and data that were on the main computer at the time of the backup, will be on the backup computer. Be sure to test the backup before relying on it as such.