

## Backups & External Hard Drives

### Time Machine

Apple's backup application to allow quick recovery of files and data that have gone missing. This app needs an external HD. Just plug it in with USB or FireWire cable. Time Machine recognizes the drive and will ask if you want to use it for Time Machine. Once you say yes, use this drive; Time Machine will start backing up EVERYTHING on your internal HD. Once it is done, Time Machine will check every hour and back up anything that has changed. This is called Incremental Backup. I will keep backing up till the drive is full and then start deleting older backups. You can select what you want backed up from the Time Machine preferences. You will then be able to go to Time Machine and find a file from a week ago or a month ago. You can choose a file or folder from within Time Machine and then click restore. It will be placed on your desktop and if there is a file of the same name, you will be asked which one you want to keep. You can transfer files to a new Mac with this back up also when you start up your new mac or use migration assistant at a later time.

If you have several computers or laptops, you can use Time Capsule. This is a combination wireless router base station and External Hard Drive. Time Capsule cannot be partitioned, though. So if you are used to having that option, this is not the solution for you. You can connect an external drive to Time Capsule to use as a network drive. You can also connect a printer to use as a network printer. Once you connect your external HD to Time Capsule, you will open AirPort utility. You will see Time Capsule in the list to the left. Click on it and then Manual Setup. The top menus will include Disks. Click on that and you will see your external HD. You will see file sharing above the Disks. This needs to be checked as well as using a password for time capsule if you so desire.

This will now be accessible to anyone on the network to drag and drop files to and from.

These are plug and play options from Apple. There are many backup utilities available. I use SuperDuper.

<http://www.shirt-pocket.com/SuperDuper/SuperDuperDescription.html>

I have the free version that only lets me make a complete clone of my hard drive. This is an exact copy of what is on my computer and I am able to start up from this copy (bootable) You can purchase SuperDuper at \$27.95 and be able to do incremental backups, be able to copy to a disk image

The other popular cloning App is Carbon Copy Cloner (CCC)

It has been donationware up until Mountain Lion came out. Now to get the version compatible with the newest OS, you need to pay \$39.95 there is a trial version for 30 days for free. If you have the donationware, there is a possibility that you can get a registration code and not have to buy the upgrade.

<https://mew.bombich.com/licenses/retrieveLicense.php>

Both these apps use the same method. You choose the source drive and then the destination drive. You will be told that the destination drive will be erased ( the first time you make the clone) and you say okay and it goes to work. Depending on the source drive size, this could take 30 minutes to several hours.

CCC and the paid version of SuperDuper both have ability to do incremental backups. As well as other advanced features like scheduling, backing up to network drives or disk images, email reminders, and restoring the clone to another HD.

## Formatting a Drive

You have an app called Disk Utility

It is for VERIFYING disk, REPAIRING and ERASING. Also, PARTITIONING and copying data disks.

When you open Disk Utility, it looks for all the disks on your computer including those connected via USB or FireWire. It will even see installation disk images.

You can verify your active HD, but if it needs repair, Disk Utility will tell you to start up from the install DVD.

RAID is a collection of HD's that work together. Mirrored Raid is a HD copying the partner drive, so you always have a backup. Striped RAID is when certain types of files are stored in "Stripes" across all the drives. This is supposed to improve speed and performance for apps that use lots of memory.

When formatting a Drive, you would look at the list in the left hand column and choose the drive, not the volume underneath it.

From there, you can choose Erase and pick the format you wish it to be changed to and to name it. A new Drive may be formatted for Windows when you purchase it. You CAN use it that way, but it will work better if it is formatted specifically for Mac.

Another option is to partition the drive. You can choose from the drop down menu for the number of partitions, and drag the divider to resize each.

This is a faster and more efficient way to start over with a USB flash drive. Once you have copied everything to the destinations you want, instead of throwing everything to the trash and waiting for it all to be deleted, you can just reformat the drive and have a fresh start.

Another great use of Disk Utility is to create disk images. The term "disk image" simply refers to a single file that contains the entire contents of a drive. You can create a disk image of a desktop drive, portable drive or even a DVD. An install disk is often a "disk image"

To create a disk image, simply click on the desired drive on the left and then hit the "New Image" button. Here you can name the image and set both its destination and encryption.

## More on Backups

There are many “cloud” type backup options. Many of these commercial types are just a storage place. You can’t view the files or pick and choose. They are for back up and restore. The price is usually affordable and if you want a “no thinking” way to be safe, this might be the ticket.

<http://www.thetop10bestonlinebackup.com/>

I just opted in to Box.com

It is a web based storage solution that allows you to collaborate on projects by sharing your files. There is no local file format to drag and drop to, you have to be able to access the internet to send and retrieve.

I also have dropbox. This service has a local folder that you can drag and drop to. It starts out with 2 GB and allows for more free (up to 18GB), if you refer people. Then there are paid storages plans.

iCloud

on your desktop, you must be running Lion or newer.

This allows many things to sync to all your mac devices. Photos , documents, itunes purchases, mail, contacts, etc. will sync to your laptop and desktop and any iOS devices. You can have a free 5GB account for each apple id. After that there are three plans at twice the \$\$ as the GB.

ProSoft Engineering, Inc has Data Backup 3 for \$49

Data Backup 3 can backup to CDs, DVDs, network drives and even non-Mac-OS formatted drives. Data Backup 3 can also schedule, compress and encrypt your backups.