

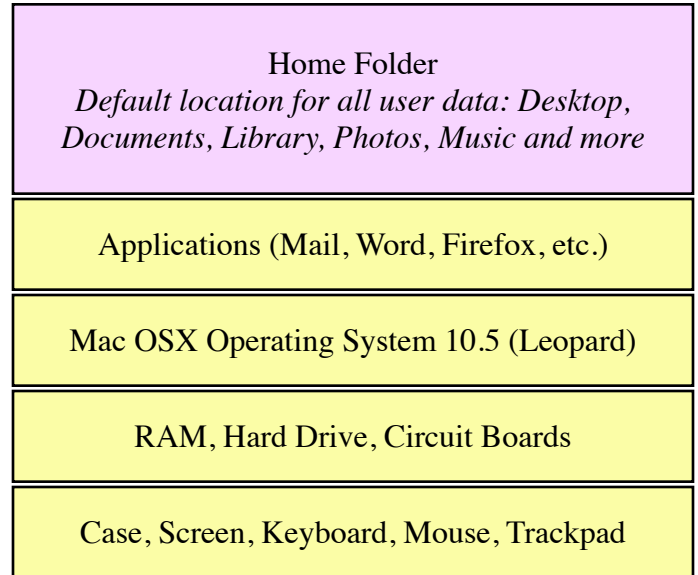
Back Up Your Mac Guide -- OSX 10.5 Leopard

Anatomy of a Mac

Your OSX MacBook or iMac can be described as a series of interrelated layers. The most important portion for backup is the top layer in the diagram, the Home Folder.

The Home Folder contains all the data that makes the machine unique to an individual user: email, calendars, contacts, word processor, spreadsheet and database documents, photo collections, music libraries, etc. As a computer user, this is the portion of the machine you have a great deal of time invested in; the four lower (yellow) layers are relatively easy to replace or repair.

This guide will present three different strategies to preserve your Home Folder data: Time Machine, optical discs, and flash drives.



Method	Time Machine	DVD-R disc	CD-R disc	USB Flash Drive
Capacity	160 GB - 1000 GB	4.7 GB	700 MB (0.7 GB)	64 MB - 8 GB
Cost	\$79.00 - ~\$300.00	25-30¢ per disc	10¢ per disc	\$3.50 - \$75.00
Ease of use	Automatic - very simple to use	Drag and drop data to disc; then wait for burn process	Drag and drop data to disc; then wait for burn process	Drag and drop data to drive, short copy process
Frequency	Hourly if external hard drive is connected to computer. Automatic as soon as drive is reconnected.	User dependent	User dependent	User dependent
Durability	good - 5 years +	high - 10 years +	high - 10 yrs +	good - 3 - 10 yrs
Weakness	hard drive based - subject to damage from being dropped or getting wet	scratches or being left in hot location slowest backup method	same as DVD	eventually wear out with little or no warning, should not get wet - highest cost per GB
Advantage	backs up complete machine - top three layers	low cost usually waterproof	low cost usually waterproof	small and convenient

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Best Method - Time Machine

Time Machine is built in as part of OSX 10.5. It is an automated backup system to an external hard drive that is triggered once per hour. It backs up the Home Folder, all Applications and the Operating System. The ease of use is exceptional.

The external drive should be at least equal in capacity to the internal drive in the MacBook or iMac.

Elementary teachers have 120 GB drives, middle and high school teachers have 160 GB drives, and iMacs have 250 or 320 GB drives.

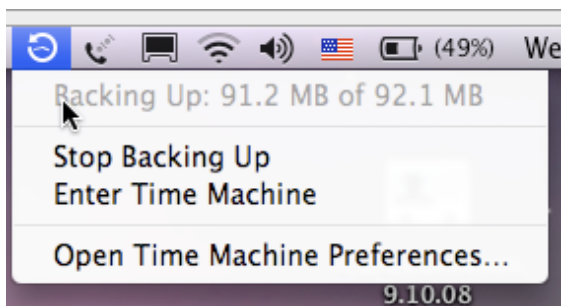
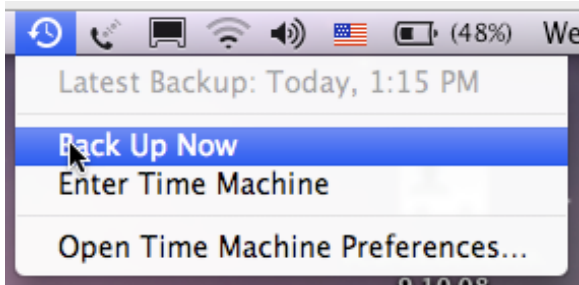
Recent sale pricing on small portable external USB drives:

160 GB ~ \$79
250 GB ~ \$99
320 GB ~ \$129
500 GB ~ \$174



Time Machine Steps

- Connect the external hard drive to a USB port
- First use will require about one to three hours since every data, application and operating system file is copied to the external hard drive. For most users this will be 30 - 100 GB of data.
- Only files that have changed are copied after the initial backup. If the drive is left connected to the machine, the hourly backup takes about 60 seconds. If you connect it once a day, it usually takes 4 - 5 minutes. You may continue to use the machine - everything happens in the background.
- You may manually trigger a backup using the menus in the upper right of your screen.
- Time Machine menus also show the progress of the current backup. (The mini clock's hands in the menu bar run in reverse during a backup session.)
- Time Machine backups may be used to restore a single file that may have been deleted/alterd all the way to the entire computer if you had a major hardware failure.
- When the backup stops and you want to disconnect the drive, just drag the Time Machine hard drive icon to the trash to disconnect the drive. (Most users with an iMac leave the drive connected continuously.)
- Store the hard drive away from magnets and in a location that won't get wet. Avoid dropping the drive on a hard surface.



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The Home Folder - Saving to Optical Discs or Flash Drives

All Users Should Backup the Desktop, Document, and Library Folders in the Home Folder

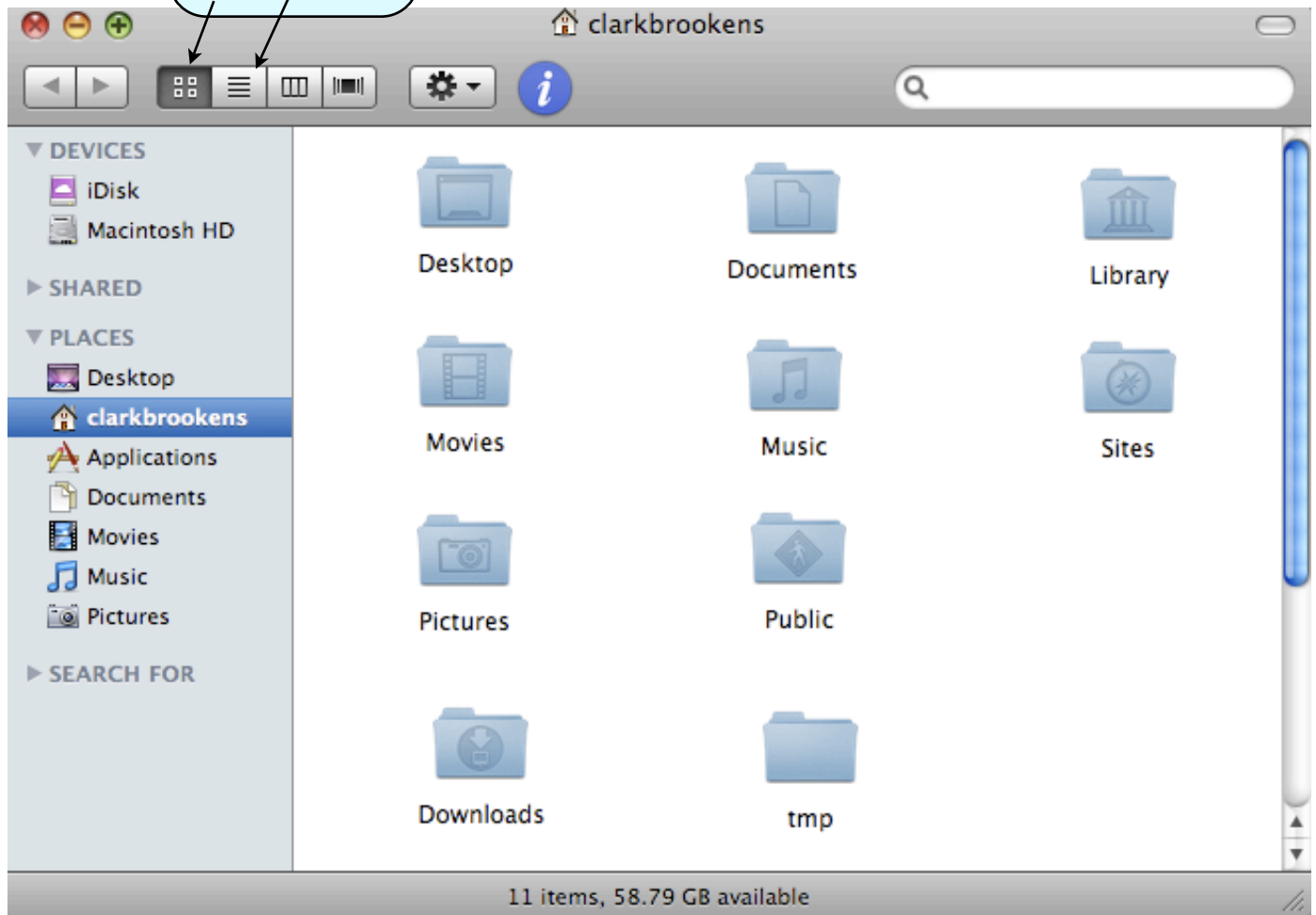
- Desktop - every file or folder icon that you see on your screen (except Macintosh HD) is in the Desktop folder.
- Documents - This is the default location to store every Word, AppleWorks, Excel, Pages, etc. etc., file you create. You may open this folder and create additional folders to organize things in whatever manner best suits you.
- Library - This folder contains all your email, Address Book vCards, web browser bookmarks, Keychains, etc. - all the files that make the machine unique to you. You generally should not open this folder and move or delete anything.

Optional Home Folders to Backup

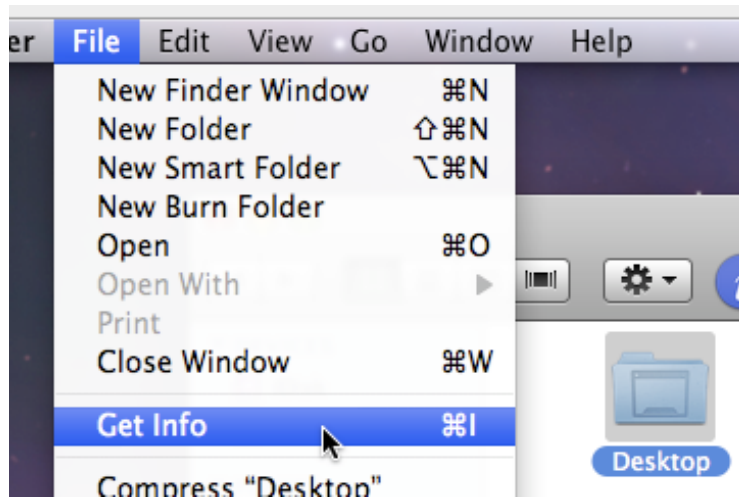
- ★Music - contains your iTunes collection and anything you may have created in GarageBand.
- ★Pictures - contains your iPhoto library - (stay out of this folder!)
- ★Movies - Contains iMovie projects, which tend to be huge files



view options icon, list, etc.



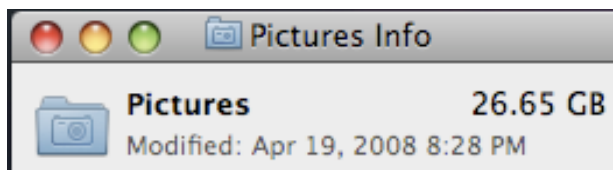
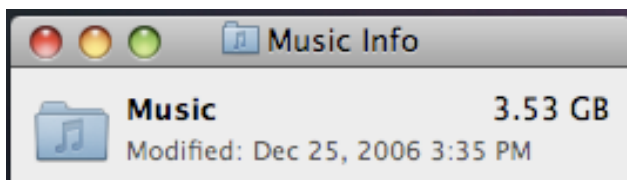
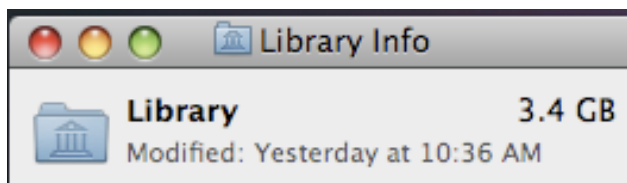
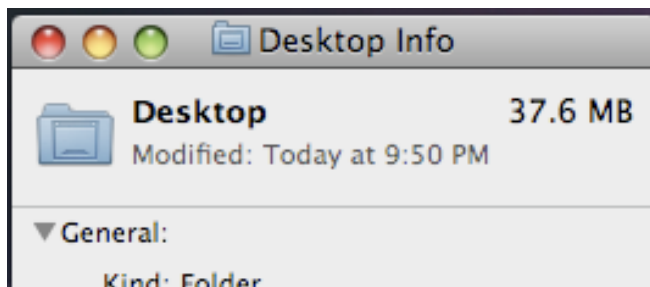
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How Much Data?

Will it Fit on a Disc or Flash Drive?

- ★ Click **once** on a folder icon
- ★ Choose the File menu and drop down to Get Info



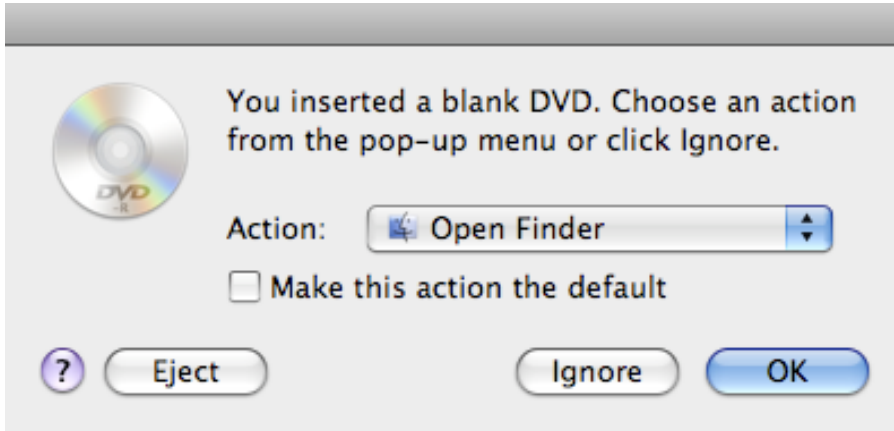
In the examples on the left the Desktop folder is small and would fit easily on a flash drive, CD or DVD.

The Library and Music folders are large and would require a separate DVD for each folder. You would need at least 2 separate 4 GB flash drives or a relatively expensive 8 GB flash drives to store both folders.

The Pictures folder contains a large iPhoto library and you would need to use multiple DVDs (probably at least six) and the iPhoto application to burn multiple discs as a backup.

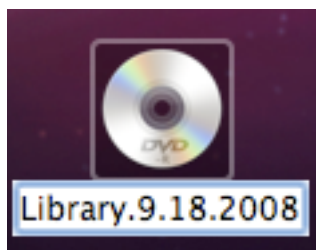
(A Time Machine external drive would back up all of the Picture folder data for you automatically.)

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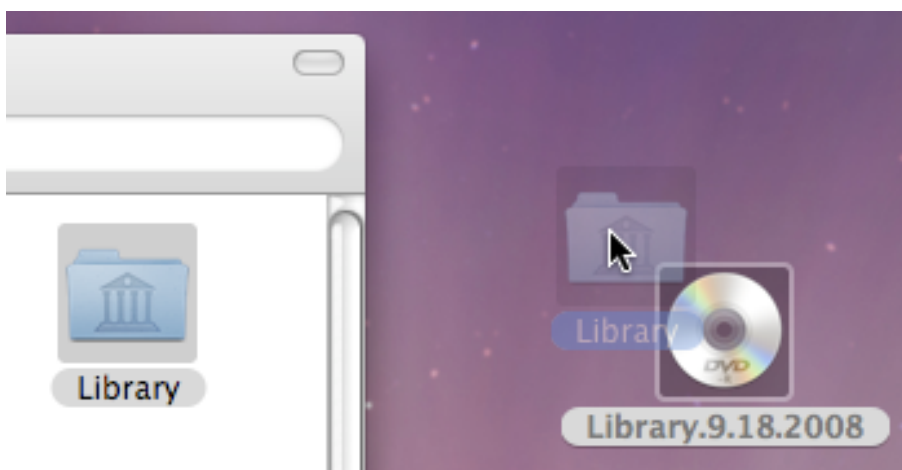


Burning to a Disc

- Insert a blank disc in your computer's optical drive.
- When the box appears, click OK.



- Click once on 'Untitled DVD' and wait a moment.
- When the highlighting changes, type in a name for the disc and touch return once



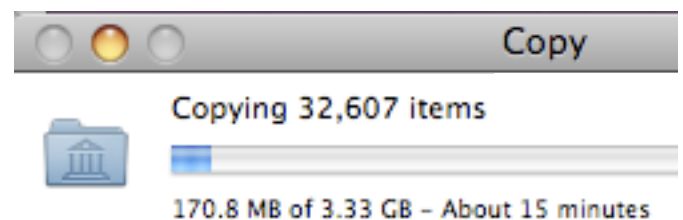
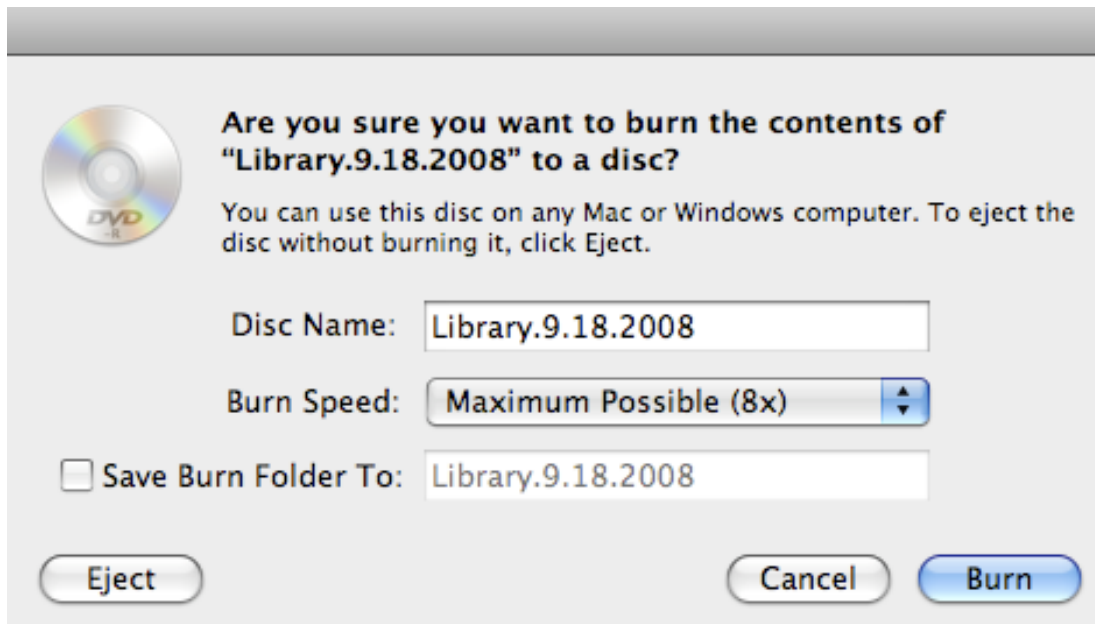
- Drag and drop the folder icon on top of the disc icon.

then.....

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- Drag the DVD icon to the Trash
- The Trash icon will change to the Burn Disc icon
- A dialogue box appears - just click Burn
- A progress bar will appear
- The disc will eject when the burn is complete
- When it is ejected, label the 'matte' side with a permanent marker and include the date.



Saving to a Flash Drive

- Insert the flash drive into one of the USB ports.
- Drag the folder icon you want to backup on top of the flash drive and release.
- A progress bar will appear. An activity light will blink on most flash drives during the copying.
- When the progress bar disappears from your screen, drag the flash drive icon to your Trash.
- The flash drive's activity light will blink quickly for 2-5 seconds, then pulse slowly or stop.
- Pull the drive out of the USB port when the light is steady or on a slow pulse.