# Book Review

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Editor Newsletter: Using Computers in Chemical Education
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# Mac OS X by David Pogue

If you are a Mac user and wondering if there is anything new and useful in Leopard, OS 10.5, that can offset the cost and effort of upgrading, the answer is yes. This book provides an engaging way of exploring the new functions and abilities. A number of these improvements will make your use of a Mac easier and more efficient, while you are working to improve your students learning.

If you are not a Mac user and have decided to switch to a Mac, this book will be quite helpful. Pogue explains things well and allows you to get up and running using the basics, with lots of depth as you add to your uses for the computer.

Pogue is the NY Times technology columnist and a prolific writer of books on using computers.
Note: Pogue, and I in this review, use the term icon to represent any file, picture, video, etc. This follows the trend that many applications will handle all data types.

## Quick Look

To be honest I haven't read all 800+ pages and you won't have to either to get quite a bit out of it. One of my favorite additions is Quick Look. As examples let's say that you have decided to clean up your hard drive, or your Downloads folder, or the Lecture folder that contains all the diverse files you use.
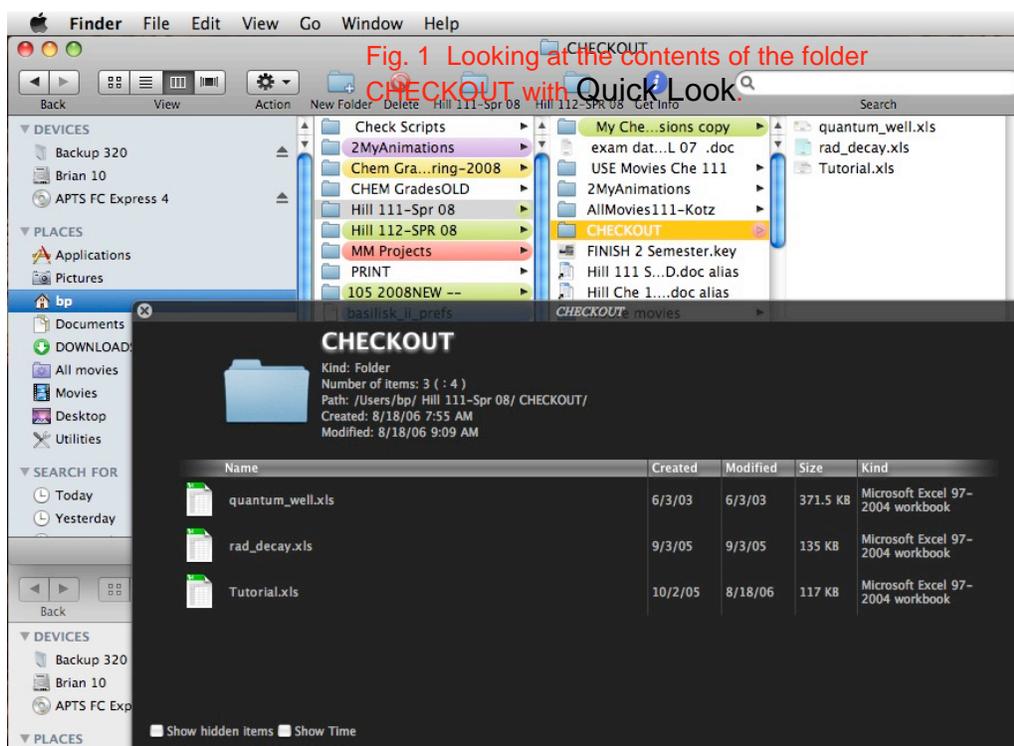


Fig. 1 Looking at the contents of the folder CHECKOUT with Quick Look.

Just click on the folder you want to examine and press the spacebar (by the way pressing the spacebar in many programs made for the Mac, performs useful functions like stopping and starting a movie in iMovie).  A dark window opens and you can use arrow keys to navigate to any folder or file.  This window gives the size of the folder or file-it will open most files, without having to start the application that created it.  If you have a lot of files that don't open  check http://www.qlplugins.com/  for plugins for many popular programs.  Quick Look comes able to open most files-doing a great job with graphics, photos, PDF, text, audio, movie, Word, Excel, PowerPoint, Pages, Keynote, etc.
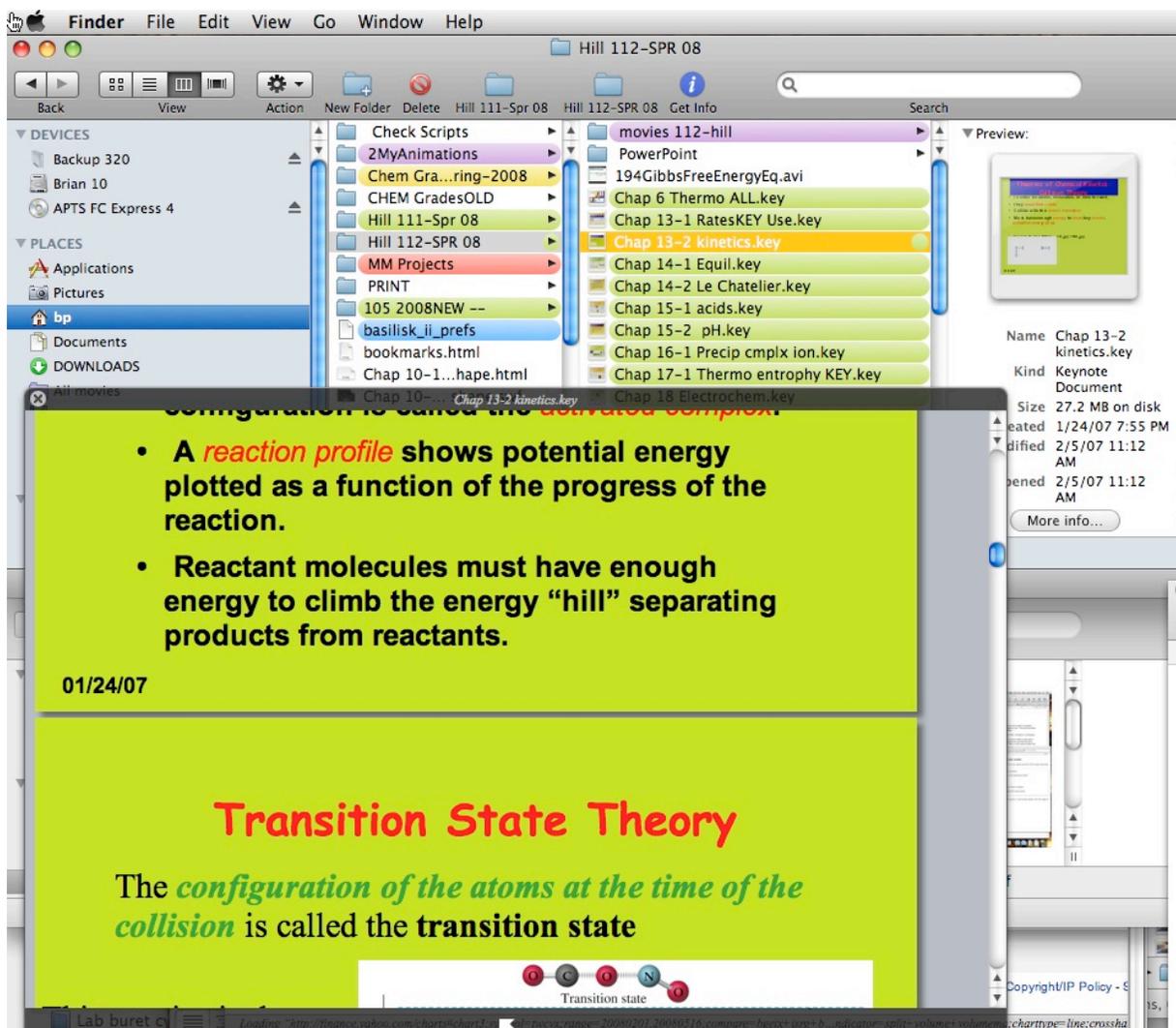
In addition to having the window with the files you are checking you have the Quick Look window which shows the actual content without having to open the program you usually use to work with the file.  Movie and sound files will open and play.  Different files come up fast and are easy to scroll through.  This is a great way to check the contents of folders. It can provide a slideshow of all the files it recognizes.

It is also useful to open tricky mail attachments and much faster than waiting to have the application open to read the attachment.

# Spotlight finds icons and opens them.  You can bring up Spotlight at anytime by pressing Command spacebar.  It will then very rapidly list its findings in an ordered set of categories which you have chosen from Spotlight System Preferences.  It will place its' top hit on top, already selected.  If this is what you want just press Enter and it will open in the appropriate program.

Or maybe you need to do a math calculation, just bring up Spotlight and type in the problem. Your first line is the equation you typed in and the answer.  Or you need to look up a words definition. Select the word and copy and paste it or type it and one of the first entries  is the definition, mouse over it and the entire definition appears,  click on this to open the dictionary for all the info, including access to the item in wikipedia.
Fig 3.  Pressing option command spacebar opens the Spotlight search window.
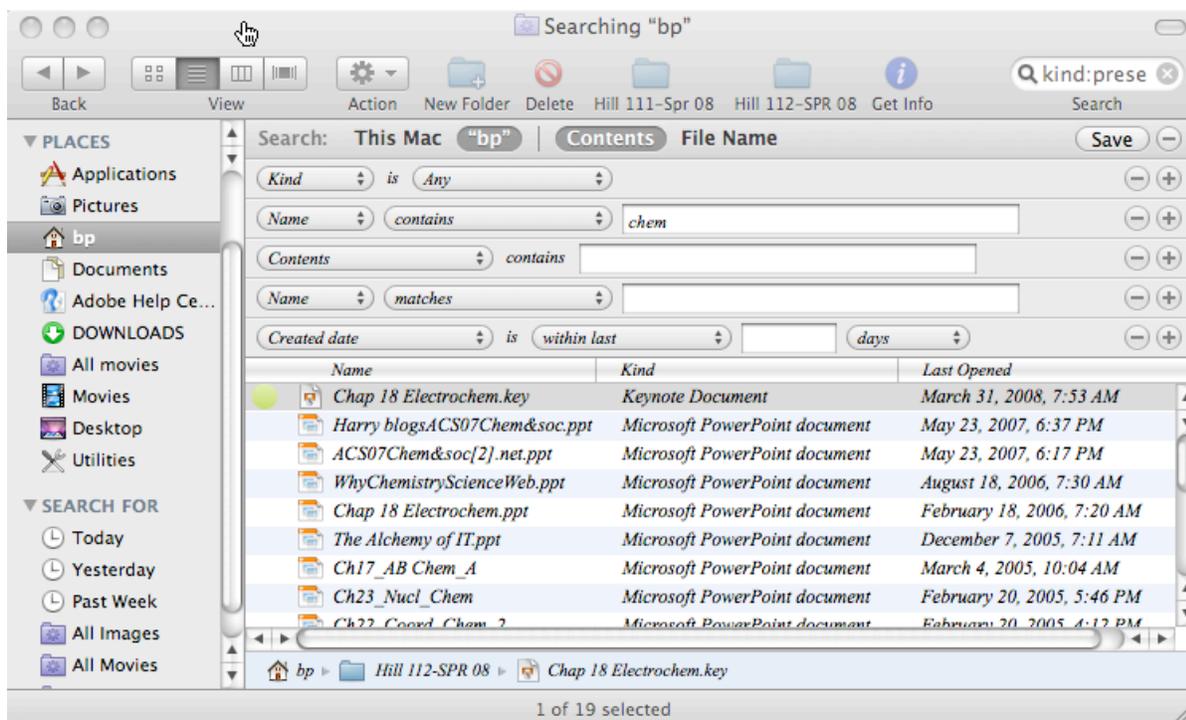


You can have 14 different categories in your preferred order. To make it more selective you can do Boolean searches.  If you want to find all your presentations, pressing option

command spacebar opens the Spotlight search window, type in  kind:presentation.  This will list all PowerPoint and Keynote files.  Select one and press the spacebar and the Quick Look window will open allowing you to look through all of your material wherever it is located on any attached hard drives! If you wish to limit it kind:presentation date this month will show presentations opened this month.  This is a very versatile tool, and I've barely scratched the surface.

# Time Machine
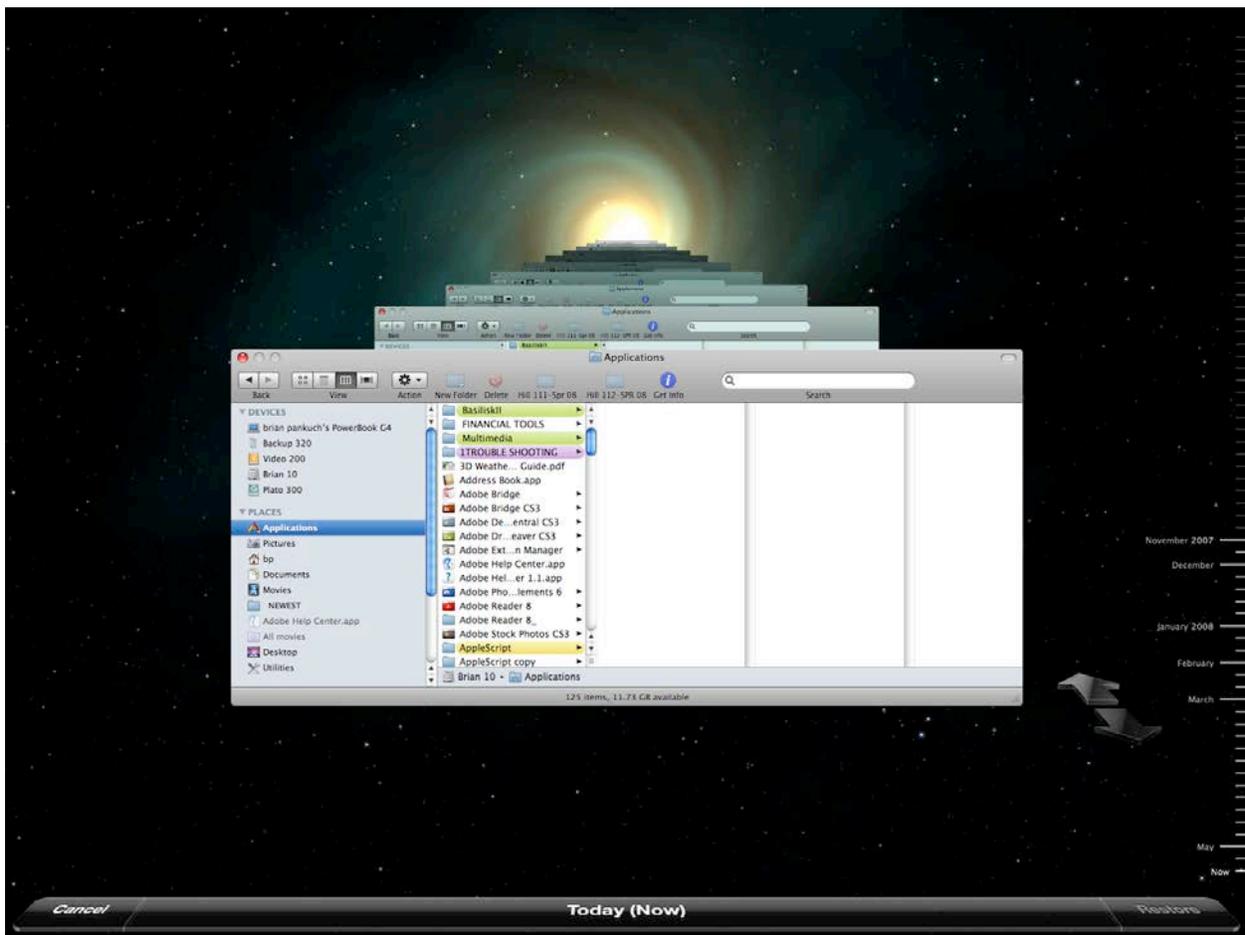


**Fig 4.  Time Machine**.

**Time Machine** is an automated backup system, you will maximize its insurance and safety value if you use a big separate hard drive. After initially duplicating all your files it will automatically recopy any file that has changed in the last hour, at the end of the day it combines the hourly backups into a daily backup.  At the end of the week all dailies are combined into a weekly backup, the weeklies into a monthly backup, etc.  When the HD  gets full Time Machine deletes the oldest backups to make room for newer

backups.  If you use a lot of big files like a 5 GB video file and you change it 7x during the day you may take up 35 GB on the backup.

It may be better to exclude these really big files when they are changing a lot and just do a save on you own. In Time Machine preferences click options, a 'do not backup' window appears, then drag any folders you don't want backed up to the window. I keep the big folders on a separate large external drive and remember to periodically save the work as I finish a change.

# Automator and AppleScript: Automator can help with a  series of actions you may repeat fairly often.  For instance you may want to send your class an article you are reading on the web quite a few times during a semester. This could be a useful program, but it is so flaky it generally isn't worth playing with.

AppleScript is more generally applicable and stable but it is more like programming.  If you have a lot procedures you'd like to automate it is worth looking into since it is very powerful.  You can include your own or other AppleScripts in Automator using the Run Applescript action.

For instance it is convenient to be able to insert your email or address anywhere anytime.  Write an Applescript to insert your name and address and save it as a program named 'zz address'.  Use command space to call up Spotlight, type z and when Spotlight appears your program 'zz address' will be selected in the Spotlight window, press return and 'zz address' will run inserting your address wherever you are. This will work to start any program - type wo in Spotlight and Microsoft Word appears press return and Word runs.  Even easier, use is a keyboard Shortcuts manager such as Spark (free) and assign keys such as option e to insert your email anywhere.

# System preferences is an application (in the Applications folder) allowing a great deal of customization:  The default for this program shows a panel organized by categories, by going to views you can display alphabetically.  So if you want to adjust the Display panel there it is under D rather than having to remember that it listed under the hardware category.

If you find yourself needing specialized symbols like ˚, ➜, ↔,⇋  choose the International panel, Input  Menu Tab, click on Character Palette and Keyboard Viewer.  Your menu bar shows a flag, if you choose Character Palette it opens and Arrows for instance will give you a wide choice of arrows or other special symbols. Choose Keyboard Viewer press option or many other key combinations such as shift-option and a miniature keyboard shows for instance that option-k is ˚, quite handy when you need the degree sign.

# Preview

This is a versatile program for reading documents, graphics, manipulating pictures. In fact the color adjustment panel is almost the same as iPhoto, and adjusting the size and resolution cropping and rotating of images is easy.  You can even extract a person or piece of apparatus from its background.

Previous  Next     Zoom     Move  Text  Select     Mark Up   Oval  Rectangle  Note  Link   Inspector   Crop    Sidebar     Found in 7 sections

Q▾ picture size

☑ Group by section

| Relevance | Section |
|---|---|
|  | Chapter 9: Cropping, resizing, retouching, … |
|  | Print a picture package |
|  | Make a Photo Book, photo collage, greetin… |
|  | Crop an image |
|  | Printing overview |
|  | Precisely remove red eye |
|  | P |

# Chapter 9: Cropping, resizing, retouching, and transforming photo

To create a customized image composition, you can crop and resize images. Cropping a photo can create a focus for a picture, or remove distracting background images. Resizing a photo lets you include more picture or fit photos better into a layout. You can retouch certain areas of a photo to fix red eye, replace color blur, and sharpen an image. You can also rotate, resize, distort or apply perspective to a photo, layer, or even manipulate a flat, two-dimensional image as if it were a solid, three-dimensional object.

## Cropping

### Crop an image

The Crop tool removes the part of an image surrounding the crop marquee, or selection. Cropping is removing distracting background elements and creating a focus for your photo. By default, when you the resolution remains the same as the original photo. Using the Photo Ratio option allows you to vi the size and resolution when cropping a photo. If you use a preset size, the resolution changes to fit t

*Crop a photo to remove some of the distracting background.*

**1**  Select the Crop tool, select Image, and click Crop or click the green check mark.

**2**  If you want to use a resolution other than that of the original photo, select one of the following op Aspect Ratio menu or specify new custom values in the Width and Height boxes in the options bar:

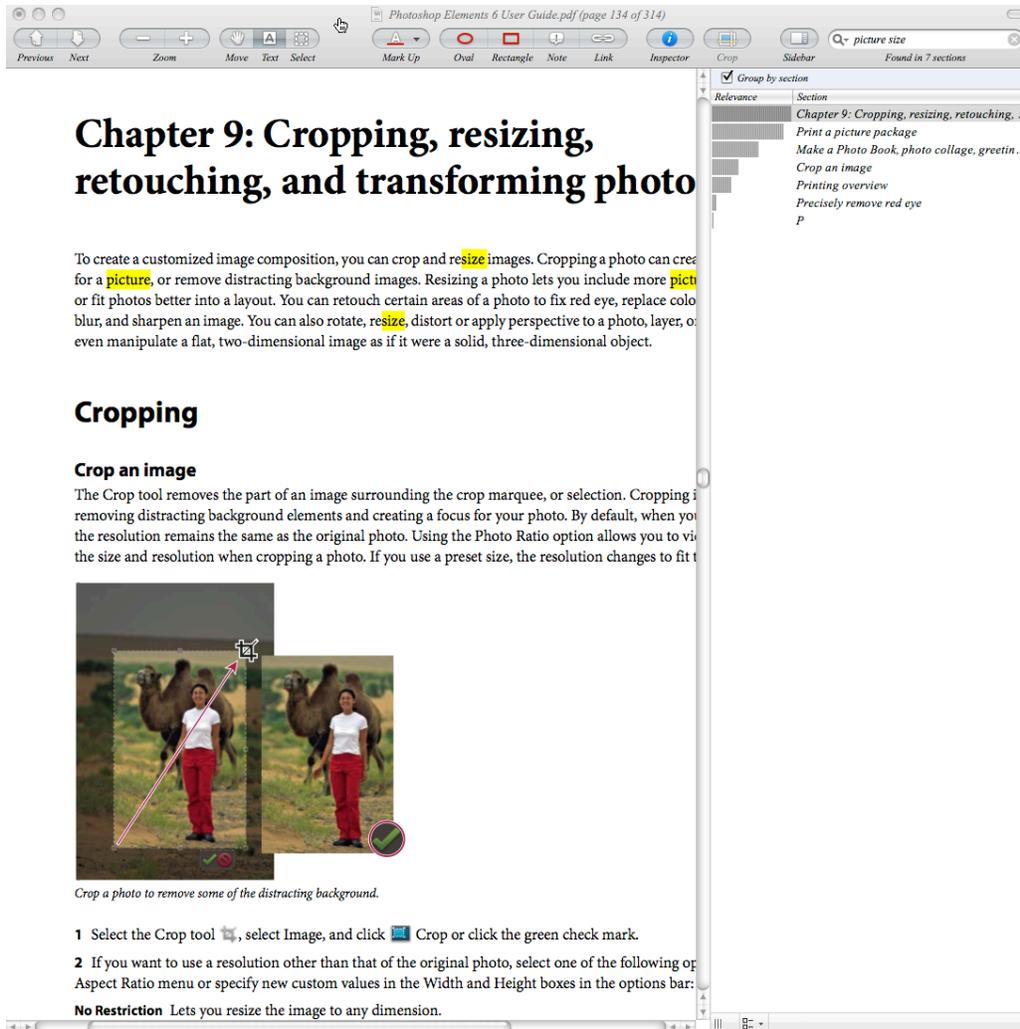**No Restriction**  Lets you resize the image to any dimension.

Fig. 5  Preview for adjusting images.

With the tendency to include User Guides for equipment and programs etc., as PDF files Preview is quite useful not just for reading them, but as an enhanced index for these documents.  Given the increased number of programs we all use and the increasing number of permutations of interactions between them it is difficult to read it all and the included indexes seem less efficient for finding specifics.  Preview is very efficient for finding material you need, especially when the searching for new techniques and you are not sure what you are looking for.

TextEdit, the program most Read me files open in, has also been improved and has been extended to do more word processing.

A neat trick when you have an icon on your desktop that you want to include as a mail attachment is to press F11, to see just the desktop, start dragging the file you want, press F11 again to make your mail visible again, and drop the file into your mail as an attachment.  You can also drag files from any source directly to the Mail Dock icon and a new message with your attachments will open.

# QuickTime is useful for playing back a variety of movies, pictures, sound or simulations in your lectures.  In QT choose Window □ Show A/V Controls and a panel opens to allow you to adjust the audio and video of your QT movie .  Move the cursor to the video scrollbar at the bottom of the window and selection handles appear.  These can be used to copy, cut, delete or paste selected parts of the movie. Pictures, text, images and clips can be pasted or inserted.

 If you have movies that come with your textbook or some other source you may want to use just a portion of the movie. QT is by far the easiest way to extract what you want and have a useful clip to use in your lecture presentation. You can also compress clips for other uses. This is great for simple changes, but I've found iMovie to have much more complete controls for more elaborate work.

Choose Window □ Favorites  and you have a convenient place to store clips and videos that you use often in lecture.  Different export options can be chosen, DV Stream to use as a clip in iMovie, AVI for Windows, etc.  The number of options and the amount of control is amazing.

If you find QT useful check out QT Pro, it has quite a few other options.

# Disk Utility  Is a hard drive repair utility and can also be used for burning repeatedly to CD's and DVD's that are usually considered single write. With a CD in the drive open Disk Utility select the CD choose Burn.  You will see the burn window, Fig. 6, be sure to check - Leave disc appendable.

It can also be used to partition hard drives, and readjust the size of partitions under some circumstances.
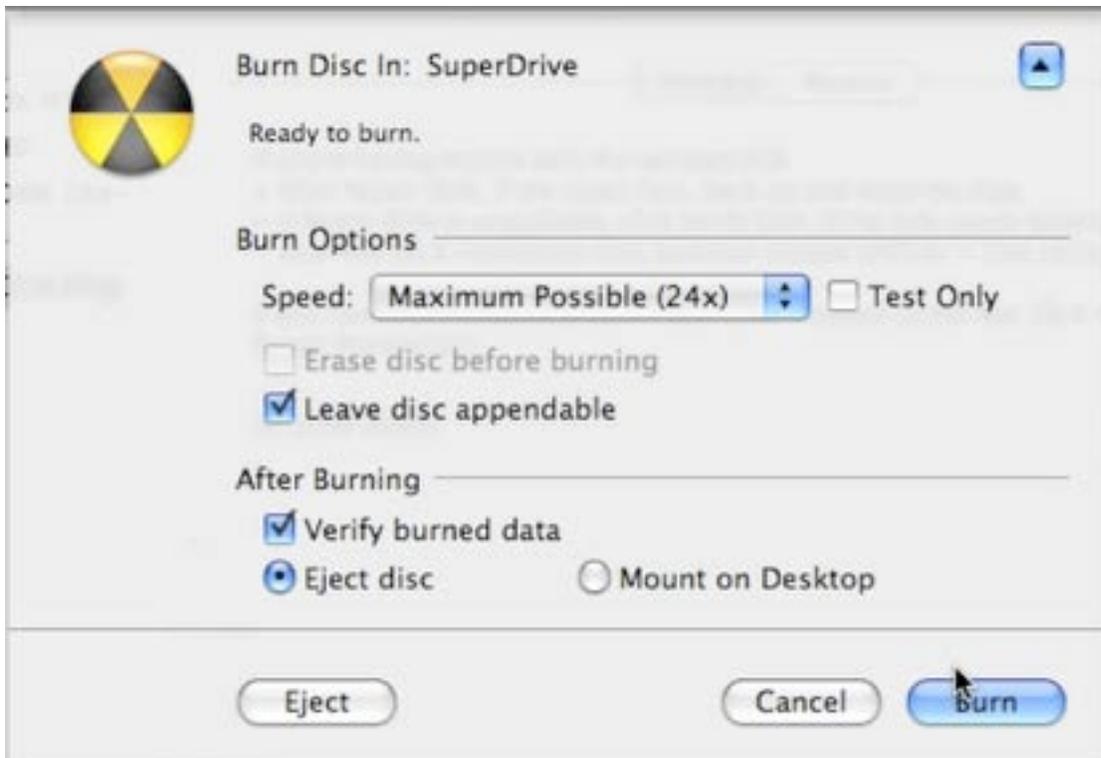
Fig. 6  Adding additional files to a disc.

I did the testing of the above topics on a MacBook Pro using OS 10.5.4 with a 2.6 GHz Intel Core 2 Duo with 4 GB of SDRAM, it is a nice system.  The 17 inch screen is really excellent.