

Utilities You Already Have on Your Mac!

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Opening Notes

Maintenance Schedule

Do two things once a month as maintenance: (1) check your hard drive, (2) repair disk permissions (in Disk Utility).

Other times to run utilities

When you are having problems. When you have installed system upgrades or updates.

Good Way to Do Software Update:

Rick downloads the update as a package.

Check the hard drive, repair permissions, run the update, repair permissions again.

Checking and repairing your hard drive:

Notes: It's not a good idea to interrupt this process or lose power during it. Your fans may be noisy during these operations.

Method A (install disk):

- (1) Boot from your OS X Install disk (must be same OS that you are using — don't use a 10.4 disk if your computer uses 10.5).
- (2) Choose Disk Utility from the Utilities Menu
- (3) Within Disk Utility window, there will be a column on the left that lists the drives it sees. Click on the name of your internal hard drive. Once that's selected, click on "Repair Disk" button on lower right.
- (4) After it runs, quit Disk Utility.
- (5) When you return to the Installer menu, click on the Restart button.

Method B (fsck):

- (1) Boot your machine while holding down Command-S. This puts the

- computer in single-user mode. (Note: you will be logged in as root user, so be careful not to type anything you don't know how to use.)
- (2) The computer will then show white text on a black screen. You are looking at Unix.
 - (3) At the prompt (for example "`-sh3.2#`"), type **fsck -yf** (**yf** are options that tell the computer to fix any problems found; if you want to be safe, use just the **f** option, so that you are prompted at every problem). Press the **Return** key.

sh = shell, 3.2 (or some other number) = version number, # is the prompt

- (4) You will see a list of things being checked. It takes a while. When it is done, you will see the # sign again. Review the text that scrolled by and look for a line that says the disk appears to be good.
- (5) If there are problems, run **fsck** again. Run until clear. If it takes more than three times, you may have a big problem that will require a utility such as Disk Warrior.
- (6) When done, type **reboot** at the # sign and press **Return**.

Method C (Safe Mode):

- (1) Restart the computer. After you hear the tone, hold down the **Shift** key. This disables extensions and runs **fsck** once. It won't show you any information while it runs, and it takes 5 to 10 minutes to run.
- (2) After it finishes, reboot normally.

If your System is corrupted, repair disk will not fix the problem. It's purely a file system check. Ditto applications — if an application is corrupt, this will not fix it. But, checking/repairing the disk is an important task to do on a regular schedule to prevent any disk problems from causing the corruption of the System or applications.

Repair Permissions

Theoretically, you can only repair permissions on the hard drive you have booted from. This is the most complete and safest way to do it.

Permissions: Mac OS X is based on Unix and is a multiple-user system. Everything on the computer is owned by someone — some users may not own an application or a document or may not even be allowed to see a document or

application.

Permissions also keep you from wiping out your own system accidentally!

This repair process is not fragile — it's not a big deal if you lose power or have to stop.

- (1) Start Disk Utility.
- (2) In the column on the left, click on your boot drive.
- (3) Click the "Repair Disk Permissions" button near the bottom of the window.
- (4) This process takes awhile (often 20 minutes or more) in Leopard. Tiger runs fairly fast.

When you click on a disk in the left column, you will find information at the bottom of the window.

Other Features in Disk Utility:

Click on the hard drive description (not the name of it), and Partition pane appears. This lets you divide your drive into several partitions (useful for having different operating systems on one drive).

When you have clicked on the name of the hard drive, Partition disappears and you will see Erase, RAID, and Restore.

Erase allows you to reformat your hard drive. Be aware that there are good security options available for multiple-pass erases if you boot from an external drive or Install DVD.

RAID (Redundant Array of Independent Disks) allows you to either mirror or stripe across a set of drives.

Restore allows you to copy an image of a drive onto your internal drive. This operation wipes out any data already on your hard drive.

General Note

Mac OS X likes to have 5 to 6 GB free space on your hard drive. If you have less than that, you may find your computer slowing down.

Terminal

Terminal allows you to enter Unix commands directly to your Macintosh (command line interface). Choose Help from the Terminal menu to learn how to use it. The Help facility includes a "Unix Basics" section to get you started using Unix. You can even copy and paste help examples into Terminal.

Example:

ls lists the current directory

top info about the programs currently running (the "q" key will let you quit)

Ways to quit out of a command:

Control-c

Control-x

q

Typing **man** will give you the manual for a command. For example, **man ls** will display the manual for the **ls** or list command. Pressing the space bar will display the next page of text in the manual, while the return key will display one more line. To get out of the manual, press **command-z**.

Further instruction on using Terminal can be found at O'Reilly's Mac Dev Center, written by MacinTech's Mary Norbury:

<http://www.macdevcenter.com/pub/a/mac/2005/05/20/terminal1.html>

For fun —

Website: usingmac.com

Find some silly songs that will run in Terminal by going to:

<http://www.usingmac.com/2008/6/24/terminal-sings-songs>

System Profiler

Can reach this program either from the Utilities folder or by choosing "About This Mac" under the Apple menu. Then, click "More Info" to get your entire profile.

Choose the topic in the left column (you may want to click the disclosure arrow

to drop down the specifics under each category). The information will show up in the right column.

Become familiar with System Profiler. You will probably need this information if you call Apple's help people. You can also find information you need in other ways: for example, how much RAM you have and what the speed is, so that you can know whether you have an empty slot to add memory. Another example is checking under "Disc Burning" so that you know what kind of media your CD or DVD drive needs. It can list all the applications on the machine and their version numbers.

A General Command

Command-Option-Escape lets you Force Quit a misbehaving application. Very useful for the spinning beach ball.

Activity Monitor

Lists the processes (programs and pieces of the system) that are running currently. Lets you see things like how much of the CPU and RAM each process is using, what your network traffic is like, how much of your hard disk you are using.

At the top of the menu bar is a filter, so that you can choose to look just at "My Processes"

Within the main window that reports the processes, clicking on a column head will reorder the processes by that criterion. If you click on CPU, for instance, you can see which processes are hogging your CPU's power.

You can also kill a process from this screen (another way to do a force quit). Don't kill anything that's owned by root.

Capturing Info on Your Screen

The commands below will give you a picture that appears automatically on your

desktop, named Picture 1, Picture 2, etc. in TIFF format.

Command-Shift-3	Takes a picture of the entire screen
Command-Shift-4	Gives you a crosshair cursor that lets you draw a marquee around part of the screen

To take a picture of a window, the menu bar, the Dock, or other area, press Command-Shift-4, then press the Space bar. Move the pointer over the area you want so that it's highlighted, then click. If you decide you want to drag to select the area, press the Space bar again.

Using the Grab program in the Utilities folder will do the same thing and more, including a timed capture. The captures are not automatically saved; you must save them. Screen captures are saved in TIFF format.

Preview

Preview is very versatile and can open text files, PDF, JPEG, TIFF, PNG, etc. In Leopard, you can now annotate PDFs (look under Tools), including red boxes and ovals to highlight text, and add notes. You can then save the PDF with your annotations to send to others.

Choose several photos and drag them over the Preview icon — it will open all at once. Then you can choose slideshow to look through them. You can also email the photos from Preview. Under the Tools menu, you can adjust the exposure, brightness, contrast, saturation, color temperature, etc. You can also convert a photo to other formats, such as PNG to JPG. (Remember that you cannot improve the quality of a digital photo by changing its format; you will only have the same quality or less. Don't repeatedly save the same file in the JPG format as a new file, because it is a lossy compression format and you will degrade its quality.)

The newest Preview will merge PDFs.

An AppleInsider.com article on Preview is found at:

http://www.appleinsider.com/articles/07/10/02/road_to_mac_os_x_leopard_an_extensive_look_at_preview_3_0.html

Console

More of a geek tool, but you can find error messages there. Try playing with it — you can't do any damage.

In the left column, there are headings for various categories of log files. Each heading has a disclosure triangle, which can be turned down to reveal sub-headings. For example, look under LOG FILES, and then /Library/Logs for the Crash Reporter. Turn down the disclosure triangle beside Crash Reporter to see the log reporting information on the most recent application that crashed.

TextEdit

TextEdit can open Microsoft Word documents. Remember that a Word document with images will open in TextEdit with only the text. You won't even know if there were images, because there won't be spaces left where they were.

TextEdit is a full fledged word processor and can be used in lieu of complex word processors like Word. Documents are typically saved as RTF files, but you can also save as MS Word documents and other formats.

Print to PDF

In applications, press the Print menu item and you will see that the resulting dialog box has a PDF button at the bottom. Pop that button open to reveal menu item choices, including **Save As PDF ...** This command allows you to save any document as a PDF, rather than actually print to the printer.

This is especially useful for saving pages in your web browser.

Services

In all native applications, there is a **Services** menu item under the application's menu (such as **Finder**). Pop Services open to reveal a host of utilities available, including **Speech**, which allows the computer to speak text (select a range of text first). And this is another way to access **Grab**, discussed above.

Contextual Menus

Don't forget Contextual Menus that show up when you click on something while holding down the Control key. With a multi-button mouse, just right-click. The list of menu items, i.e. utilities that show up when you right-click depend on the item you click.