

## Ways To Make Your Mac Go Faster

Are you happy and satisfied with the speed of your Mac ? Unless you have a brand new PowerPC G3 (and even if you do), you also want to squeeze every last iota of performance out of your Mac. This guide will explain how to optimize both your hardware and software to get the best performance, whether you are running a Mac 512k or a Macintosh G3 speed demon. Even a 7 MHz 68000 processor can perform better than you might think. Here are some of the ways you can try. If you have way(s) to make your Mac go faster, email me at [cmteng@kagi.com](mailto:cmteng@kagi.com)

On the other hand, your can get fast, modern new or used computers today for not very much money. Consider that option before you spend much for upgrading.

In certain circumstances, almost always there is an exception to any rule.

### Hardware Optimization

1. 680x0 computer users can speed up their Mac when running math and graphic applications by installing FPU (FPU stands for Floating-Point Unit, also knows as Math Coprocessor or floating point co-processor). FPU is a hardware chip that performs certain types of mathematical operations quickly. The performance of many scientific, mathematical, and financial applications increases greatly when an FPU is installed. FPU will benefit programs like Excel and ClarisWorks spreadsheets.
2. Want to make your Mac really go faster ? Go get yourself a CPU accelerator. This small hardware device is placed on top of your CPU. CPU accelerators adjust the clock speed of the computer, extracting a few extra megahertz which can kick-start our Macintoshes and make them feel like new again. There are two types of accelerators: (A). CPU upgrade, ranging from dropping a 16MHz 68000 into a Mac Plus (Brainstorm), to putting a faster CPU card into a Power Mac. This allows turning a lowly LC into a 68040 powerhouse, a IICI into a Power Mac. (B). Clock boosting. Many Mac can be boosted 20-40%. Make sure the upgrade includes a fan to cool the CPU, which could overheat. A Mac IISI easily goes to 25MHz, often 28MHz. A Power Mac 6100 can often hit 80-84MHz. Please take nota that : (1) hardware accelerators can overheat the motherboard, (2) fans strain the power supply, often require soldering on the motherboard (a dangerous practice) and can malfunction, (3) many older computers cost as much to upgrade as a complete more modern used computer.
3. Installing Level 2 (L2) Cache can also increase computer performance. The bigger Level L2 cache you have, the faster your Mac will be.
4. Certain model of PowerMac can upgrade to G3. It may be cheaper to upgrade to G3 than getting a new one because you can usally use your current RAM, Hard disk, Monitor and CD-ROM. But check for alternatives.
5. If you are willing to spend few hundred dollars for a 3D card, you can get faster and better 3D rendering. It's good for playing 3D games such as Myth, Weeekend Warrior and Quake. It won't make the game faster but it will give you unprecedented realism.

## Software Optimization

1. Avoid unnecessary extensions. The more you have, the more memory and disk space it will eat up. Bugs in an extension can also crash and slow down your computer. Your Mac will also startup faster when you have fewer extensions and control panels to load.

2. Avoid unnecessary control panels in your computer. Just like extensions, the more you install, the less memory and disk space will be left for you. Bugs in a control panel can also crash and slow down your computer.

3. Get yourself a copy of Connectix Speed Doubler 2 (or Speed Doubler 8 for MacOS 8 or above) to accelerate your Macintosh without the expense and hassle of upgrading your hardware. Speed Doubler's Speed Emulator will rocket past the performance of Apple's built-in 680x0 code emulator. You'll also get faster disk access on all Mac and quicker Finder functions. Latest version for Speed Doubler 2 and Speed Doubler 8 is version 2.0.3 and version 8.1.1 Updater can be downloaded from the Connectix Corp Website at <http://www.connectix.com/connect/update.html>

4. You can also get a copy of CPU Doubler from Orchard Software. This control panel will make your Mac faster, but won't double its overall CPU speed. Orchard Software states that anyone using few extensions and running only one application at a time will see little benefit from CPU Doubler. If you run multiple applications and want to squeeze every ounce of speed out of your Mac, give it a try.

5. Handy Control Panels like CopyDoubler (Symantec), Speed Copy (Connectix Corp), Aladdin Speed Boost (Aladdin System, Inc.) will greatly accelerate file copy and trash removal on your Macintosh, as well as providing some extra enhancements. For copying files to a networked server, Speed Copy gives files correct privileges.

Symantec Corp Website <http://www.symantec.com>

Connectix Corp Website <http://www.connectix.com/>

Aladdin Systems, Inc website <http://www.aladdinsys.com/>

6. Install TurboBoot extension (Part of FWB ToolKit Family). This extension forces your Mac to load your extensions and control panel more quickly. Visit the FWB Website at <http://www.fwb.com> Another alternative is to use Startup Doubler 1.0 (By Marc Moini). According to the Read Me file. Startup Doubler makes startups speed up to twice faster, depending on the performance of your startup disk and the number of extensions and control panel in your system folder. By the way, Startup Doubler is not compatible with FWB TurboBoot. Startup Doubler can be downloaded at <http://www.kagi.com/authors/marc/>

7. Modern Memory Manager (inside the memory control panel) should be turned on because PowerMacs handle memory in a different ways compared to 680x0 computer. However, if you always get error type 11 on certain applications, try turning off the Modern Memory Manager and launch the application again. When the Modern Memory Manager is off, it will slow down your PPC a little bit. But if your Mac is running OK, ensure it is always turned on. You won't find "Modern Memory Manager" if you're using Memory control panel v7.5.7 or above.

8. PPC users can set their Disk Cache (inside Memory control panel) from 96K to 7680K. The more you allocate to the Cache (within limits), the faster Mac you get, but the less RAM you have left for other applications. The secret is that the more disk cache you allocate, the more frequently used information can be stored in RAM, which allows your computer to call up the information more quickly. There has been a lot of controversy about what's the right size to use. Apple suggested allocating 32K per MB of RAM installed. In System 7.5, the more disk cache you allocate the faster your Mac will go. But, sometimes it also depends on the application being run. If you're using Mac OS 8 or 8.1, you can simply open the Memory control panel and click the Use Defaults button found at the bottom of the control panel. Your Mac will determine the best disk cache setting based on the amount of RAM you have installed.

9. LibMotoSh, a shared library by Motorola is a highly optimized memory, string and math library for the Power Macintosh. LibMotoSh replaces several commonly used functions provided by the standard C library. Motorola claims that many PowerMac users see tremendous performance gains for some operations when using this library. LibMotoSh can be downloaded from [http://www.mot.com/SPS/PowerPC/library/fact\\_sheet/libmoto\\_download.html](http://www.mot.com/SPS/PowerPC/library/fact_sheet/libmoto_download.html)

10. Install SerialSpeed 230 to boost your serial port throughput to 115,000 bps or 230,000 bps with no additional hardware required. It works with the enhanced serial ports (on most Power Macintosh and Macintosh "AV class" computers) to boost your serial port speed. Your existing applications can use SerialSpeed 230 to speed their operations. They'll talk to your modem or printer 200% or 400% faster than before! Latest version is 1.7. SerialSpeed 230 can be downloaded from Brookline web site at: <http://www.brooklinesw.com/>

11. Always optimizing the placement of your computer files on your hard disk to maximizes your computer performance. (You can use Symantec Corp's Norton Speed Disk or AlSoft's Disk Express Pro). You should optimize your hard disk if it is above 2 or 3% fragmentation. Symantec Corp Website <http://www.symantec.com>  
AlSoft Website <http://www.alsoftinc.com>

12. If you are not on a network, go to the Chooser and deactivate AppleTalk. If you turn it on, your system will lose about 10 percent in performance.

13. Avoid using Virtual memory. Use real RAM if possible. Always remember that Virtual Memory will be turned on after you install a new Mac OS (I don't know why!) even you have enough RAM to run all your applications. All the latest information indicates that for OS 8.x: (1) the speed penalty is minimal, if it exists at all, and (2) the system is more stable with VM turned on. Apple suggests allocating 1 MB more than the physical RAM that is installed.

14. If you really need to use more RAM than the amount of physical RAM you have, I suggest you add RAM Doubler, as it is far faster than virtual (Unless, of course, you can afford gobs of RAM.) RAM Charger is another good suggestion. But be aware that , while RAM Doubler is useful for letting you run more applications simultaneously, it doesn't do much good for RAM-hungry applications like PhotoShop, Premiere, and the like.

RAM Doubler website <http://www.connectix.com/html/ramdoubler.html>

RAM Charger website <http://www.JumpDev.com>

15. Turn off the Menu Blinking inside the General Controls panel. Don't waste your time blinking the selected menu item, what you want is your mac to executes your choice.

16. Try to remember keyboard shortcuts so you won't have to select the command from the menu bar. For example.

Quit = Command + Q,

New File/Folder = Command + N

Copy = Command + C

17. Install CDIconKiller to suppress custom icons on CD-ROMs, floppy disks and networked disks, which tends to speed up the Finder by a factor of about a zillion. This is because custom disk icons take time to reproduce on the screen. To temporarily show the custom icons, hold down the command key when opening a folder. Can be downloaded from Info-Mac Website at : <http://hyperarchive.lcs.mit.edu/HyperArchive.html>

18. Do not check "Calculate folder sizes" inside the View control panel, since this will slow your computer considerably and can slow the server (if you are connected to a server) to a crawl the minute you open a folder. Not available in MacOS 8 and 8.1.

19. Install Hidden Finder Features. This control panel allows you to disable Zoom Rectangles. So, when you open a window, the window will not zoom out but pop out. Can be downloaded from the Info-Mac Website at :

<http://hyperarchive.lcs.mit.edu/HyperArchive.html>

20. Utilities such as CharisMac CD AutoCache allow you to have faster searches and data access for your CD-ROM. The software works by employing two steps. The first step caches the directory of CD-ROM discs into RAM and keeps a copy on the hard disk. This allows for faster searches. The second step then caches the data into RAM. The software automatically adjusts the total cache and cache segment sizes depending on what type of data is passing through the cache (for example, small cache segments for QuickTime movies, large cache segments for database and graphics). Visit CharisMac Homepage for more information

<http://www.charismac.com>

21. AV machines users should install AV Cache Tuner Extension into their computer. It speeds up most disk operations, which deal with lots of files such as copying, moving, and deleting files. Remember, this extension is for AV machines only! Can be downloaded from the Info-Mac Website at :

<http://hyperarchive.lcs.mit.edu/HyperArchive.html>

22. If you have the ATI Xclaim VR card install the ATI MPEG Accelerator extension and you'll have some serious MPEG acceleration! (of course, you need the QuickTime MPEG extension from Apple installed in your system as well. Enjoy!).

23. Users who have Zip drives should install the Findit INIT extension to permit quick cataloging of any Mac OS-formatted disk on your system. This is particularly important for removable disks that have a tendency to increase in number over time. Findit keeps track of every folder and file on your disks so you can locate them anytime without shuffling and searching. It's a good idea to physically label every disk with the same name given to its screen icon. Then, when Findit identifies the disk by name that contains your file(s), you can simply locate the disk by name and start working (or playing) without frustration. Iomega website is at <http://www.iomega.com/support/software/mac.html>
24. Set your mouse tracking speed to the fastest in the Mouse control panel.
25. Remove startup picture (or Startup screen). Reading the startup screen file into memory and display it may take a few seconds. The process happens every time you turn on or restart your Mac. However, you can not remove the 'smiling face' startup screen which comes with Mac OS.
26. If you don't really need accurate colors on screen, reducing your display to the minimum number of colors will speed up screen redraw, especially for applications that require 256 colors or more.
27. When you choose a multiple scan display in the Monitor control panel. Choose the higher (Hz) for faster screen redraw.
28. For faster font display, use Geneva 9 point. This is fast because the font is built into the System file. Even if you delete all the fonts, your Mac will still have Geneva 9 point for screen display. The default font for Mac OS is 10-point Geneva, but try to keep the font size as small as is reasonably possible to allow more items to appear in a given windows. Please do not torture your eye because of this.
29. Mac OS 8 user should upgrade to Mac OS 8.1. Mac OS 8.1 dramatically expands hard disk efficiency, and includes dozens of enhancements that improve system performance and stability, such as improvements in Virtual Memory and disk caching that can speed application launch and relaunch by up to 50%. Mac OS 8.1 (updater) can be downloaded at <http://www.apple.com>
30. Get yourself a copy of Connectix Surf Express. Surf Express delivers the performance Web users have always wanted. Using a combination of advanced network technology, intelligent page caching, and Connectix' award-winning ease of use, Surf Express accelerates the browsing experience up to 36 times. Visit Connectix Corp Website at <http://www.connectix.com/> for more information
31. Turn on the submenu option if you installed Apple Menu Options control panel. This will give you access to items within folders through Apple Menu. This is faster than double clicking multiple folder levels. You can also make an folder's alies and put it into Apple Menu Items (in the System Folder). Hierarchical menus will be available for this folder when you access it from Apple Menu. Be aware however, that some users have reported dramatic slowdowns in some computer functions after they have enabled the Submentus option.

32. Applications such as Adobe Photoshop, Macromedia SoundEdit, and other graphics and multimedia applications, will run faster if you allocate more RAM to them (via the Get Info window). This works because RAM is much faster than hard disk. For Adobe PhotoShop, you should allocate 3 times (or more) as much RAM as the size of the document you are working on. Please remember that this method doesn't apply to all applications.

33. Uncheck the 'Shut Down Warning' in the General Controls Control Panel.

34. Remove desktop picture. It is nice to have your favorite photo as desktop picture but it takes time and consumes memory. If you really don't want to have dull and boring desktop install some desktop pattern.

35. If you are surfing the web over a slow modem link and your favorite sites contain a lot of advertisements, you should install WebFree. This control panel allows you to screen out most Web advertising banners, blinking text, and animated gifs by identifying and blocking tags associated with these elements. The control panel is also customizable, allowing you to add other tags as you please. WebFree can also be configured to block "cookies" - small bits of code that tell a Website which areas of the site you've visited. The goal of WebFree is to make your web surfing more productive. WebFree works with existing web browsers. Can be download from <http://www.falken.net/webfree/>

36. If you have a PowerBook, open the PowerBook control panel and move the slider over to Better Performance. Don't worry about battery conservation if you're plugged into a wall outlet.

37. Don't launch too many application at a same time. All those program will share your computing power and slow down your Mac. Try to close unnecessary applications and scheduling routine background tasks (such as virus checking and backup) if you really need computing power for one application such as 3D rendering. However, when you are doing word processing or listening to an Audio CD it is good to have scheduling routine background tasks to 'Keep your CPU busy'.

38. For Power Macintosh user, try to use applications which are optimized for PowerPC.

39. For Mac OS 8, 8.1 and 8.5. Select 'Preferences...' from Finder's Edit Menu and set the delay before opening for spring-loaded folders to short, so that you won't have to wait so long for a folder to open when you use the feature

40. In the Keyboard control panel, set the Key Repeat Rate to Fast, Delay Until Repeat to Short. This allows you to enter a lot of characters quickly (if you are quick enough) and you don't have to wait long for characters to being repeated when you hold down a key.

41. Try to have as few windows open as possible. This will speed up your Mac because it takes computing time to redraw the display. You can see this clearly if you open a lot of windows on a 680x0 Macintosh. Holding down the 'option' key while double-clicking an icon will close the previous window.

42. Some game and multimedia CD-ROMs won't let you use the program unless the CD is in the CD-ROM drive. You can sometime bypass the inserted CD-ROM requirement by copying the entire CD-ROM to your hard disk and renaming your hard disk with the same name as the CD-ROM. This speeds up the program loading time because a hard disk is faster than a CD-ROM drive. Certain games such as Bungie's Myth and Blizzard's Diablo require a CD-ROM in order to function, but there are times when using a CD-ROM drive is inconvenient or impossible. For instance, when you're trying to play on a PowerBook without a CD-ROM drive or when you're in PowerBook battery-critical situations (on a long flight) and you'd rather your volt-hungry CD-ROM drive didn't reduce your playing time. You can use the ShrinkWrap utility to create mountable disk images of CD-ROMs, but regrettably, ShrinkWrap doesn't handle such dual-platform CD-ROMs as Myth and Diablo. However, Apple does provide a workable solution with its newest version of the venerable Disk Copy (6.1.2). Just drag and drop the CD-ROM's icon to the Disk Copy icon. Disk Copy will open and display a dialog box asking you to name the image. This same dialog box sports a Mount Image checkbox. Check it to have the image of the CD mount automatically. Once Disk Copy finishes with the disc you can eject the CD and never bother with it again. Just mount the disk image whenever you want to play your favorite game.

43. If you have a lot of hard disk space, increase your web browser disk cache to make your web surfing faster. With a bigger disk cache, more graphics can be stored in the cache, and you can return to a page without having to download the graphic again. Navigator or Internet Explorer user can set the cache size under Preferences: Advance:cache. If you have sufficient RAM, a RAM disk will speed up your caching and uncaching dramatically.

44. Netscape allows you to quickly find something on the Web by entering a two-word-or-more search phrase into the Location field. For example, just type "Macintosh game cheats" (without quotes) into the Location field to have Netscape open its default search engine page which randomly chooses one of its many search engines for you.

45. With Mac OS 8, you can now view files and applications as buttons in the Finder - just as you could with the venerable Launcher. This button functionality is helpful when you want to open a file or launch an application with a single click. But buttons don't behave like other icons. Here are a few button tips: Have you ever tried to drag a button? It can't be done by clicking and dragging on the button's icon. You must click and drag on the button's name.

46. If you have the 3Dfx chipset, found on TechWorks' Power3D PCI card, with the help of Andreas Varga's free 3Dfx Tweaker utility, you can tweak it to new performance heights. 3Dfx Tweaker allows you to adjust the card's screen refresh rate, thereby optimizing the card for your monitor and helping provide flicker free video. You can also adjust the card's clock rate, making the graphics processor run faster and produce higher frame rates. Finally, you can adjust the card's swap buffer interval, which helps reduce the time between video frames. Adjusting the card's clock rate will cause the processor to generate more heat which may shorten the life of the card. Andreas suggests that, if you overclock the card in this fashion, you add a cooling fan to the card. Make sure you read the 'ReadMe' file before changing any setting. You can find 3Dfx Tweaker at <http://www.macdownload.com>

47. Several utilities such as Connectix Speed Doubler offer features such as Hot Key. You can set

your own combination key or hot key. When those keys are pressed, action will be taken.

48. Try to have as few fonts as possible inside your Fonts Folder. Each font file takes a small toll in system speed.

49. Go get yourself a copy of Mac OS 8.5. It is much more stable and FASTER than any other version of the Mac OS. This is especially noticeable with the much-hyped file transferring. The whole system feels snappier than 8.1 did. Of course almost all of the code is finally PowerPC native, taking advantage of faster and more powerful chips available. But be aware that you may need a lot more RAM than even with MacOS 8.1, and some of your older applications and utilities may be incompatible.

50. Mac OS 8.5 brings something into the OS formerly performed by ATM or Smoothtype, onscreen Font Smoothing. Enabling the option 'Smooth all fonts on screen' will clear up the "jaggies" or rough edges on your screen's fonts. The built-in font smoothing is better than both ATM and Smoothtype, and does not slow the system down much or cause incompatibilities.

51. The Appearance control panel from Mac OS 8.5.x lets the user choose a "soundset" which enables sounds to be used for tasks performed on the computer. This feature is very cute but it can slow down your Mac. Anyway, many non-Apple soundsets have been made and are available to download from the Internet free of charge on sites such as: "<http://www.macosthemes.net>".

## Bonus ways (not to be taken seriously)

1. Try to play with a Macintosh 128K (8 Mhz) for a year and then switch back to your current computer. Your Mac will never be the same.

2. Go get yourself a Power Macintosh G3.