Capturing a Mac ROM Image

(updated March 20, 2010)

Note: This was written by Jim Watters as part of his now off-line (and dearly missed) "Macintosh Emulation Station."

Step One: Buy A Mac

The sad fact is that legally you must own a 68k Macintosh in order to use it's ROM image with a Mac emulator. You will need a ROM image from any 68030 or 68040 Mac to use the current Mac emulators, but soon there will be Power PC emulators one of which will require a PPC ROM. eBay [http://www.ebay.com] is a good source of cheap Macs, but look around at local Mac repair shops in your area for specials (check the Yellow Pages under "computer repair/dealers" and look for an Apple Certified dealer). Remember that you want a Mac with a 68030 or 68040 processor.

Note: This guide is not for grabbing ROMs from PPC Machines. Instead, check out <u>this guide</u> for ideas. Also consult this forum thread [http://www.emaculation.com/forum/viewtopic.php?t=6113] on the subject.

Step Two: Make Sure That PC Exchange Is Installed On Your Mac

You will be transferring the ROM image from your Mac to the PC via a PC formatted floppy. The Mac OS needs PC Exchange installed in order to recognize PC-formatted disks. All Mac OSes after 7.5 come with PC Exchange (as long as you installed it). Look in your Mac's control panels folder for a control panel called PC Exchange. If it's there, proceed to the next step. If it's not, you will need to install it via your Mac OS install disk(s).

By the way: If you are using Mac OS 8.5, 8.6 or 9, you are on a Power Mac – not a 680×0 Mac.

Step Three: Download The Required Software

You will need two things to get you on your way: Aladdin Stuffit Expander [http://www.emaculation.com/basilisk/stuffit_expander_55.bin] and a Macintosh ROM image capture program like GetROM which is available with the various Basilisk II builds (in the ROM Dumping Utility directory) or CopyROM [http://www.emaculation.com/basilisk/CopyROM.hqx] (note: you must right click and "save as" to download in FireFox).

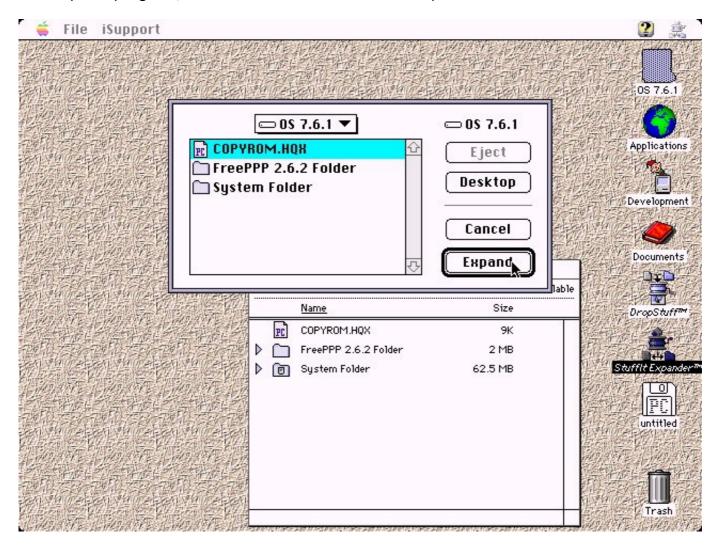
Download the ROM capture program(s) on your Mac, or do it on your PC. But you will need to transfer the file to your Mac in order to use it – a PC formatted floppy will do the trick. So now you should have either GetRom.sit.hqx or CopyROM copied to your Mac's hard drive – right? :)

Note: Some people use both programs and create two ROM images. Some say that each ROM image capture program handles ROMs differently. But you don't have to worry about that now.

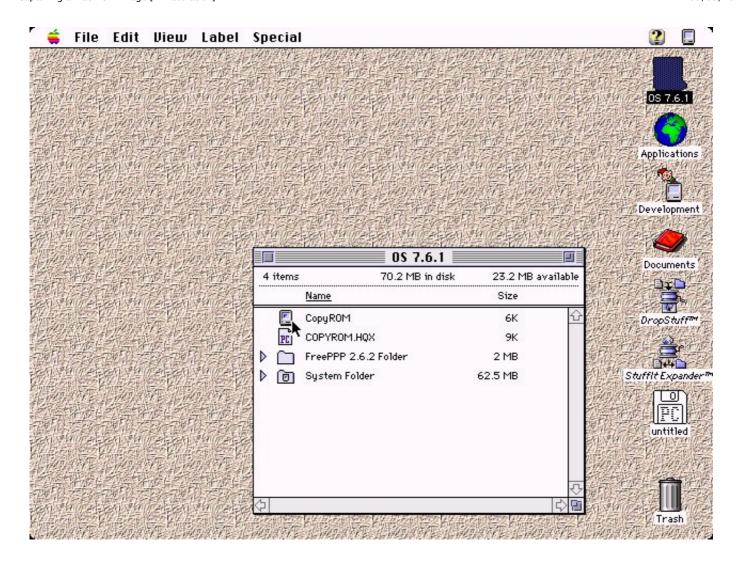
Step Four: "Un-Stuff" The ROM Image Capture Program

I will have to assume you already have Stuffit Expander installed here. Double-click on the Stuffit Expander icon on the desktop. Now that Stuffit Expander is running, choose Unstuff from the File

menu. This will open a dialog box like the one below. Navigate to where you copied the (Bin-hexed) ROM capture program, select the file then click on the Expand button:



The ROM extracting program will now be located it the same folder that the compressed program is. It will either be called CopyROM (which I am using here) or GetROM:

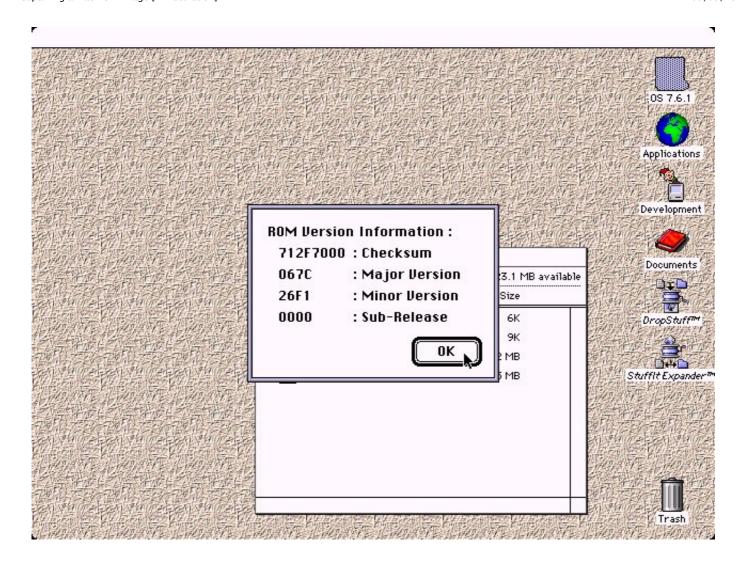


Step Five: Reboot With Extensions Off

In order for the ROM grabber to get a "clean" image of the hardware ROM, it is recommended that you reboot with extensions off. Do this by holding down the shift key after restarting. This will boot the machine into its pure environment, but all extension and control panel driven activities such as printing and network access will be unavailable until you boot normally. You will also be unable to access your PC floppy until rebooting in Step Eight.

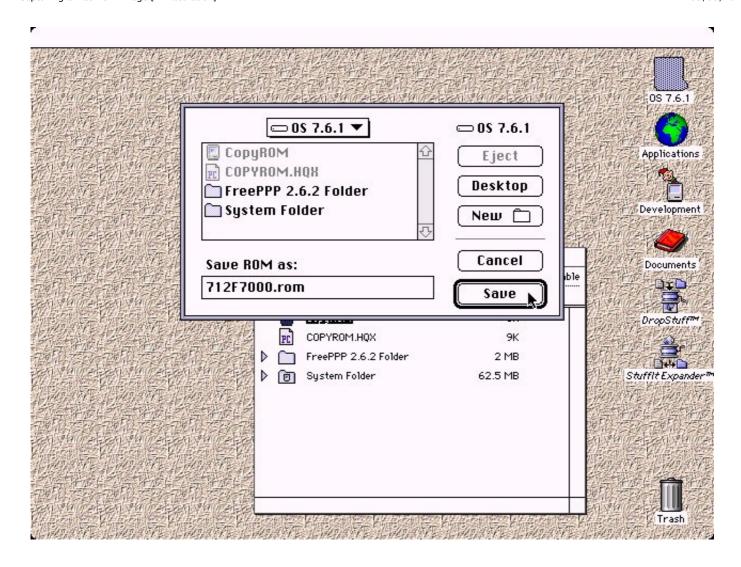
Step Six: Launch The ROM Capture Program

Run the program by double-clicking on the file. When the ROM information screen comes up, I suggest writing at least the ROM checksum info down on a sheet of paper. The ROM checksum hexadecimal number is important for troubleshooting future problems you may experience using any Macintosh emulator. But if you don't write it down now, you get get the info later. Click the OK button when you are finished.



Step Seven: Save The ROM Image To A Folder

You can now save the ROM image to disk. I suggest renaming the file to match the ROM checksum you wrote down earlier (you did do that didn't you?). **Important**: Both Fusion and SoftMac require that a "rom" extension is added to the end of the ROM image file's name. For example: FF7439EE.rom.. But you can add the period rom (.rom) at anytime before using the ROM image with these two Mac emulators.



Step Eight: Check The Size Of The ROM Image

The 68k Mac emulators (Basilisk II, Fusion PC and SoftMac) can use either 512 KB or 1 MB ROM images. 512 KB ROM's come from older Macs that cannot run Mac OSes after 7.5.5 or 7.6.1 (no OS 8.x). If you have a 1 MB ROM image, you are in luck and can run up to OS 8.1 on the Mac emulators. If you have a ROM image larger than 1 MB, then your Mac is a Power PC or Quadra 660av or 840av.

Step Nine: Reboot Your Macintosh

After rebooting, you can copy your new ROM image to a PC formatted floppy.

Step Ten: Transfer The ROM Image To Your PC

Copy the ROM image file into the Windows directory that contains your Mac emulator or Mac emulator demo. You're all set as far as having a ROM image.

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