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How to Upgrade the Firmware of a 2009 Mac Pro 4,1

The 4,1 Mac Pro can be upgraded to be identical to the 5,1 model from 2010-2012

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This document was generated on 2019-09-17 03:03:03 PM (MST).

INTRODUCTION

The 2009 Mac Pro shares an identical motherboard with the 2010 model. With a firmware update, you can use newer CPUs and upgrade to macOS 10.12 and 10.13.

It is important to note that you will need an official Apple GPU installed while performing the flash, so go ahead and dig out that old GT120 that came with the system when you purchased it if you've upgraded to a non-official GPU in the meantime.

If you opted for a GPU upgrade from Apple at any point, you may have a different card. This could include:

• ATI Radeon 4870

• ATI Radeon 5770

• ATI Radeon 5870

Provided these are original Apple cards, you should be fine to proceed.

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Step 1 — Download the Tools & Upgrade to macOS 10.11
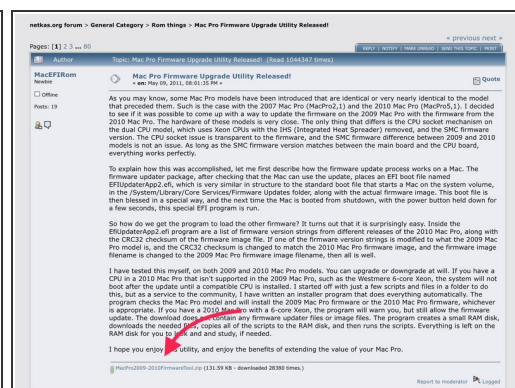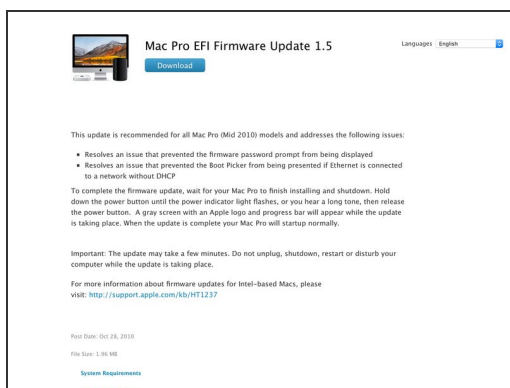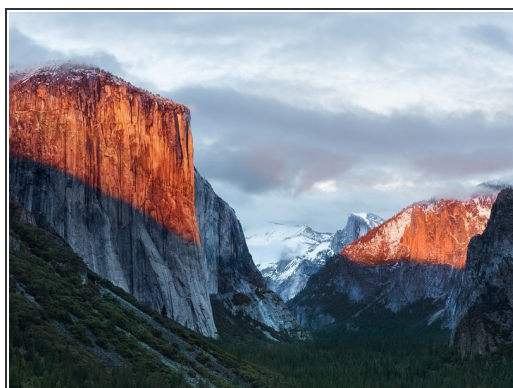
- First thing's first: You will want to upgrade to macOS 10.11, which is the latest "officially" supported version of macOS for the 4,1 Mac Pro.

  - Provided you are on at least 10.6.6, you should be able to download the installer from the Mac App Store by following this link

    - If you are on 10.6.5 or earlier, you will need to first upgrade via Software Update to the last release of Snow Leopard (10.6.8) to get access to the Mac App Store.

- You will need to download two different packages to complete the upgrade:

  - Mac Pro EFI Update

  - Firmware Update Tool (hosted at Netkas in the bottom of the first post)

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Step 2 — Disable SIP

- You'll need to disable System Integrity Protection (SIP) in order to flash the new firmware.

- Restart your Mac Pro and hold **cmd+r** to boot into the recovery partition on your boot drive.
  - Once in Recovery Mode, go to the Utilities menu at the top of the screen and click **Terminal**
  - Enter the following command:
    - **csrutil disable**
- Hit return and restart your Mac Pro as normal.

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Step 3 — Run the Firmware Tool

- While the tool was originally designed to pull the firmware directly from Apple's website, a change in the file location and name on Apple's part has made it necessary to download & mount the .dmg prior to running the tool.
  - Double click the firmware file you downloaded in step one to mount the disk image to your desktop.
- Right click and select "Open" on the firmware update tool. Since it is not signed with the proper certificate, macOS will likely refuse to open it just by double clicking the file. Right click the file and open from the menu to fix this.
  - You should have two options in the window - upgrade to 2010 firmware and downgrade to 2009 firmware. Only one option will be available at any given time, dependent on which firmware you have installed.
    - There is really no reason to ever downgrade to 2009 firmware, as none of those machines are still under any warranty from Apple and the system discs are not as important now that all OS versions are given as software downloads.
    - You are not required to upgrade your CPUs if you update to the 2010 firmware- your original system configuration will continue to operate as it always has.
  - Be sure to read any and all information that the utility may pop up.
- **IF YOU HAVE DIFFICULTY**: Try using this alternate tool.

Step 4 — Shut Down & Flash

- After the tool has finished its work, it will tell you to shut down your computer. Just perform a normal shut down procedure.

- After your Mac Pro is powered off, hold the power button down until you see the power LED blink quickly or you hear an audible tone. The blinking LED will precede the tone.

- Your computer should now begin to update the firmware on its own. You should see a gray screen with a progress bar at the bottom of the screen.
  - This is a different bar than you would normally see with macOS- the firmware updating bar will be a hollow rounded rectangle that slowly fills up, rather than just a bar that slowly gets longer as you would typically see.
  - Your computer may restart on its own again following the flash.

Step 5 — Check to make sure it worked!

- Once your machine has rebooted to the desktop, it's time for the moment of truth.

- Open **About this Mac** and click on **System Report**
  - It is worth noting that **About this Mac** will still report this as a Mac Pro (2009), even after a successful flash.
  - In **System Report** you should see a line in the first window labeled *Model Identifier* - if the firmware flash was successful, you should see **Mac Pro5,1**

Step 6 — Re-enable SIP

- Unless you have a compelling reason otherwise, you'll want to reenable SIP. Once again, you'll have to go into Recovery Mode just like you did before and open the Terminal.
  - Enter the following command
  - **csrutil enable**
- Reboot the machine and let it load to the desktop. Open a new terminal window and enter the following command to check the status of SIP
  - **csrutil status**
  - If all was successful, you should get a line back that reads:
  - *System Integrity Protection status: enabled.*

Step 7 — That's it!

- And that's all there is! Now you should be able to upgrade the processors to a much wider swath of options.

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