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Power Macintosh 7200 Series: Frequently Asked Questions (1/97)

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TOPIC -----

This document contains the answers to frequently asked questions (FAQ) about Power Macintosh 7200 series computers.

Questions answered in this FAQ:

- 1) What is the difference between native software, conventional software, and "Fat" software?
- 2) What causes Type 11 errors?
- 3) What causes Type 10 errors?
- 4) Does my Power Macintosh have an FPU (Floating Point Unit/Math coprocessor)? I see errors that an FPU is not installed.
- 5) I need to run DOS software on my Power Macintosh 7200 series computer. What are my options?
- 6) I have an old program which tells me to turn off 32-bit addressing. But I do not see this as an option in my Memory control panel. Why?
- 7) How can I get the built-in Ethernet address for my computer?
- 8) Can I add level-2 processor cache to my computer? Is it a SIMM or DIMM?
- 9) Can I add Video RAM (VRAM) to my computer?
- 10) I started my Power Macintosh computer from the startup CD but Disk First Aid says "files are open." How can I close those files?
- 11) I have an old program that requires less than 256 colors to be on. But the Monitors control panel settings don't show anything less than 256. What can I do?
- 12) At startup time, my monitor flashes off and back on again. Why?

- 13) I have a CD-ROM that said to install the Apple Multimedia Tuner. Do I need this on my Power Macintosh 7200?
- 14) I have a GeoPort Telecom Adapter. What version of the Apple Telecom software should I use?
- 15) I can't see a restart button on the computer. What do I use to restart my Power Macintosh 7200 if the screen is frozen?
- 16) I am trying to connect to my internet service provider (ISP) using SLIP/PPP software. What do I need to know?
- 17) Can NuBus cards be used with these Power Macintosh computers?
- 18) Is there an upgrade available for the Power Macintosh 7200 series computers?
- 19) Where can I find the latest Apple software updates online?

DISCUSSION -----

1) Question: What is the difference between native software, conventional software, and "Fat" software?

Answer: The Power Macintosh runs in two modes, without any further assistance from the user: it can run "native" software, which is software written for the PowerPC chip, or "conventional" software, which is software written for an older 68000, 68020, 68030, or 68040-based computer. Conventional software is sometimes referred to as "68K" software.

Conventional software runs in an "emulation" mode, which is functionally similar to the 68LC040 processor. Conventional software will generally give between Macintosh IIci and Quadra 605 performance, depending on how many references the software makes to the native "toolbox" in the computer. Conventional extensions and control panels may rewrite native parts of the system software causing slower performance.

Native software runs only on Power Macintosh computers. It has been rewritten to be aware of and to take advantage of the PowerPC chip inside of all Power Macintosh computers.

"Fat" applications are programs that can be run on either a 68K or Power Macintosh computer without modification. The operating system automatically determines which part to use.

Since "Fat" applications are really two programs in one, many installers will offer either a "Power Macintosh" or "Conventional" install. If you have installed a software billing itself as "Accelerated for Power Macintosh" and, once installed, it does not recognize features which definitely exist, such as an FPU, make sure you have installed the correct version and build. Both versions will run on the Power Macintosh, but only the "native" version will benefit from all the special features of the Power Macintosh.

2) Question: What causes Type 11 errors?

Answer: Type 11 errors are typically due to one of a variety of factors:

- Font problems: you are using a bad font.
- Incompatible software running in emulation.
- SCSI chain problems: bad driver or cable.
- Cache SIMM problems (if you have installed one on your Power Macintosh computer).
- RAM problems: bad RAM has been installed.

For steps on how to troubleshoot such problems, see the referenced article in the online Apple Technical Info Library (on the Internet at <http://til.info.apple.com/>)

- Use the search string "type 11 power" to locate the article "Power Macintosh: Meaning of Error Type 11."
- Use the search string "sys7 extension troubleshoot" to locate the article "Troubleshooting Macintosh System 7 INIT Conflicts"

3) Question: Does my Power Macintosh have an FPU (Floating Point Unit/Math coprocessor)? I see errors that an FPU is not installed.

Answer: All PowerPC processor chips, which all Power Macintosh computers use, have an integrated FPU. You may be seeing the "FPU not installed" error for two reasons:

- You are running "conventional" software in 68K emulation. This operating mode does not provide access to the computer's floating point unit. Thus, the program does not work. See if there is an upgrade to a PowerPC native version of the program. Certain software "bridges" exist to allow conventional software access to the PowerPC microprocessor's FPU. See the Redgate Communications area to search for such products.
- You are using software, in either emulation or native mode, which is simply failing. Since the PowerPC supports pipelining instructions, a number of errors are occurring simultaneously. They eventually percolate out as an "FPU not installed" error. An error did occur, but it has nothing whatsoever to do with the need for a floating point unit. You should apply standard troubleshooting steps to resolve this issue. Standard troubleshooting information can be found in the online Apple Tech Info Library.

4) Question: What causes Type 10 errors?

Answer: A Type 10 error seen on a Power Macintosh 7200 series computer is going to occur under the same circumstances as an FPU error. Due to the changes and enhancements in the 680x0 emulator, there are instances where an FPU error will be returned as a type 10 error. Follow the same troubleshooting steps you would when troubleshooting an FPU error.

5) Question: I need to run DOS software on my Power Macintosh 7200 series computer. What are my options?

Answer: With a Power Macintosh 7200 series computer, there are several ways to accomplish this.

- Apple offers two PC Compatibility cards featuring either a Pentium 100-megahertz processor on a 12-inch card (M4092LL/A) or a 586 100-megahertz processor on a 7-inch card (M4091LL/A). These PC Compatibility Cards let you run MS-DOS and Windows applications directly on your Power Macintosh computer. You can switch instantly between Mac OS, Windows, and MS-DOS environments with a single keystroke.

- Orange Micro has announced a version of their Orange PC card for PCI based Power Macintosh computers. The Orange PC cards use an expansion slot inside of your Power Macintosh 7200 series computer. You can get more information by contacting Orange Micro directly. Their phone number is 714-779-2772.

- Reply, Inc. has also announced a version of their DOS on Mac card for PCI based Power Macintosh computers. The Reply cards use an expansion slot inside of your Power Macintosh 7200 series computer. You can get more information by contacting Reply directly. Their phone number is 800-801-6898.

- You can use Insignia Solutions' SoftWindows emulator. This is a Macintosh application which emulates a PC DOS/Windows environment. You can get more information, such as pricing, performance, system requirements, and compatibility information from Insignia by calling them at 800-848-7677.

6) Question: I have an old program which tells me to turn off 32-bit addressing. But I do not see this as an option in my Memory control panel. Why?

Answer: All Power Macintosh computers run only in 32-bit memory addressing mode. There is no way to turn this off. Check with the vendor for a 32-bit compatible version of the software.

7) Question: How can I get the built-in Ethernet address for my computer?

Answer: The Apple LAN Utility version 1.0b4e1 can obtain the built-in Ethernet address in the Power Macintosh 7200 series computer. While this utility is not supported by Apple, it is available in the Apple Software Updates area of the online services we post to (path: Macintosh -> Unsupported -> Apple LAN Utility 1.0b4e1)

With System 7.5.3 and the included Open Transport networking software 1.1, you can also determine the Ethernet address in either the TCP/IP or the AppleTalk control panels. The following steps apply to either control panel.

Step 1

Open either the AppleTalk or TCP/IP control panel.

Step 2

Choose User Mode from under the Edit menu. Click once on Advanced and click Okay.

Step 3

Click on the Info button at the bottom of the AppleTalk or TCP/IP window. The built-in Ethernet address is listed as the Hardware Address and is in Hexadecimal format.

8) Question: Can I add level-2 processor cache to my computer? Is it a SIMM or DIMM?

Answer: You can add a level-2 processor cache to the Power Macintosh 7200 series computers. The cache is a 160 pin DIMM (dual in-line memory module). You can contact an Apple-authorized service provider for ordering information and installation.

9) Question: Can I add Video RAM (VRAM) to my computer?

Answer: You can increase your VRAM to 2 MB or 4 MB from the 1 MB it originally shipped with. The VRAM DIMMs must be 1 MB, 112-pin fast-paged mode, with 70 ns RAM access time or faster. Do not use 256K VRAM SIMMs. If you increase the VRAM to 2 MB, make sure the DIMM is added to the first VRAM slot. You can contact an Apple-authorized service provider for ordering information and installation.

Note also that adding VRAM will increase overall graphic performance on the Power Macintosh 7200 series computers because the bus is increased from a 32-bit wide bus to 64-bit wide bus with the additional VRAM.

10) Question: I started my Power Macintosh computer from the startup CD but Disk First Aid says "files are open" and won't allow me to click on repair. How can I close those files and repair the directory?

Answer: Virtual memory is active when started from the Power Macintosh CD. Here are two ways to disable Virtual memory.

Step 1

Insert the CD into the computer. Open the Startup Disk control panel and select the Power Macintosh CD. Restart the computer and push and hold down the Shift key. Release the Shift key when you see the Extensions Off message at the Welcome to Macintosh screen. Virtual memory is now off and Disk First Aid should be able to attempt repairs.

Step 2

Start the computer with the Power Macintosh CD in the drive and hold the letter C down. When you see the Macintosh face on the screen, immediately release the letter C and push and hold down the Shift key. Release shift when you see the Extensions off message at the Welcome to Macintosh screen.

11) Question: I have an old program that requires less than 256 colors to be on. But the Monitors control panel settings don't show anything less than 256. What can I do?

Answer: The built in video will not support less than 256 colors or greys. If you have a program that requires black and white, 4, or 16 colors to run, then you will not be able to run these programs. Check with the software vendor for availability of a compatible version. You could also check with video card vendors to see if any offer support for less than 256 colors.

12) Question: At startup time, my monitor flashes off and back on again. Why?

Answer: The software video driver for the monitor is loading up. This is normal and is answered in the Power Macintosh 7200/9500 Read Me file.

13) Question: I have a CD-ROM that said to install the Apple Multimedia Tuner. Do I need this on my Power Macintosh 7200?

Answer: The Power Macintosh 7200 series computers originally shipped with QuickTime 2.0. and will benefit from the Tuner. If you have installed QuickTime 2.1, then you do not need to install the Apple Multimedia Tuner. Check the version of QuickTime installed to determine if you need the Tuner. We would recommend upgrading to QuickTime 2.1 which incorporates the Tuner. QuickTime 2.1 is available in the Apple Software Updates area (Path: Macintosh -> System Software -> Other System Software -> QuickTime 2.1)

Additionally, if you are using System 7.5.3, then you do not have to upgrade because QuickTime 2.1 is included.

14) Question: I have a GeoPort Telecom Adapter. What version of the Apple Telecom software should I use?

Answer: You should use at least the Apple Telecom 2.1 that is in the Apple Telecom folder inside of the Apple Extras folder on your hard drive (and on your backup CD if you have removed it). Megaphone 1.0.2 is also provided in this folder. The current Apple Telecom 2.3 is compatible, but adds no additional functionality for the Power Macintosh 7200 series computers.

15) Question: I cannot see a restart button on the computer. What do I use to restart my Power Macintosh 7200 if the screen is frozen?

Answer: The reset command is a keyboard shortcut identical to the Macintosh Quadra 605 and Macintosh LC computers. The key combination is Command-Control-Power. In addition to the keyboard power button, the Power Macintosh 7200 series computers also have a power button on the bottom front left panel (below the speaker panel).

If these do not restart or shut down the computer, it may be necessary to disconnect the power from your Macintosh computer. This can be done by turning

off the power strip or by disconnecting the cable from the outlet or the back of the computer.

16) Question: I am trying to connect to my internet service provider (ISP) using SLIP/PPP software. What do I need to know?

Answer: Check the Open Transport FAQ for more detailed information. Make sure you have at least Open Transport 1.0.7 (1.0.6 is what originally came with your Power Macintosh 7200 series computer). Version 1.1 is the current version and is included with System 7.5.3. Computers with Mac OS 7.5.2 can update to 7.5.3 by installing the System 7.5 Update 2.0. The system update is available online or from the Apple Order Center at 1-800-293-6617, ext. 984 for a \$13 shipping and handling fee. Both updates are available in the Apple Software Updates area on the online services to which Apple posts its software.

Also make sure you are using the TCP/IP control panel and not trying to get MacTCP to work. MacTCP is not compatible with the Power Macintosh 7200 series computers.

17) Question: Can NuBus cards be used with these Power Macintosh computers?

Answer: NuBus cards cannot be used in this Power Macintosh. However, to preserve your investment in NuBus technology, a NuBus expansion chassis for PCI will be available from Second Wave, Inc. This chassis will enable you to continue to use your existing NuBus cards in Power Macintosh systems with PCI slots.

18) Question: Is there an upgrade available for the Power Macintosh 7200 series computers?

Answer: The Power Macintosh 7200 series computers can currently be upgraded to a Power Macintosh 7600/120 or a 7600/132. See Technical Information Library article titled "Pwr Mac Processor Crds & Logic Brd Upgrades: Descriptions" for more detailed information or contact your local Apple-authorized service provider.

19) Where can I find the latest Apple software updates online?

- On the Internet at the following sites:
 - Worldwide Web: <http://www.info.apple.com/swupdates>
 - ftp: <ftp://ftp.info.apple.com/>
- On America Online, use keyword: applecomputer
- On CompuServe, use GO: APLSUP

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