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PowerPC PowerBook Computers: Frequently Asked Questions (1/97)

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TOPIC --

This document contains the answers to frequently asked questions (FAQ) about the
PowerPC PowerBooks. This discussion includes the PowerBook 5300 series, 2300
series, 500 series upgraded to PowerPC, and 200 series upgraded to PowerPC.

DISCUSSION ---

1) What is different about the PowerPC PowerBooks compared to other PowerBooks?

2) I forgot the password that I entered into my Password Security control panel
and now I cannot get into my computer. Is there anyway to bypass the password?

3) If the PowerBook 5300/2300/190 series computers do not come with system
disks, how do I restore my software in the case of a hard drive crash?

4) Why is it that my Macintosh Quadra 800 seems faster than my PowerBook 5300
(or any PowerPC PowerBook) when running some applications?

5) How do the PowerBook 5300 series computers implement external video?

6) What is special about the SVGA display that comes with the PowerBook 5300ce
computer?

7) Can the PowerBook 5300/190 series computers use two batteries
simultaneously?

8) Does the PowerBook 5300ce computer support thousands of colors on both the
internal display and an external monitor?

9) Will the RAM from my PowerBook 200/500 series computer be compatible if I
upgrade to the PowerPC 603e processor?

10) Sometimes I cannot seem to use my internal modem and print at the same time.
Why is this?

11) Sometimes I get errors when printing to my StyleWriter (or any serial
printer). Why is this?

12) I am trying to reset the parameter RAM (PRAM) on a PowerBook 5300 series computer but it does not seem to be working. What is the correct way to "zap" the PRAM on a PowerBook 5300 series computer?

13) Do the PowerPC PowerBook computers support PlainTalk Speech Recognition?

14) Can I use an external microphone with a PowerBook 5300 series computer?

15) I have hooked up an external CD-ROM drive to my PowerBook 5300 series computer and I am playing an audio CD. When I bring up the AppleCD Audio Player I can see the numbers moving but there is no sound coming through the speakers, although I can hear the sound of regular multimedia CD-ROM discs fine. Can I play an Audio CD through the internal speakers?

16) My PowerBook computer's display is blurry or sometimes has shadowing and ghosting effects. What can I do to correct this?

17) Do the PowerBook 5300 and 2300 series computers support the GeoPort?

18) Are Apple's current docking products, modems, and RAM still compatible with a PowerBook 200 series computer which has been upgraded to PowerPC?

19) Will my RAM and internal modem still be compatible after I upgrade my PowerBook 500 series computer to the PowerPC 603e processor?

20) Some PowerPC PowerBook computers come with 8, 16, 20, or 32 MB of RAM. Which models come with the RAM card slot filled?

21) What are the differences in the trackpads that come on the different PowerPC PowerBook computers?

22) Sometimes when I try to use the trackpad, the cursor jumps around uncontrollably. What causes this?

23) My PowerBook 5300 series computer will not turn on at all. There is no reaction whatsoever when I press the power button. Is there any thing I can try before I decide I have to have it serviced?

24) Where else can I go for answers about PowerBook computers?

25) Where can I get the latest software updates for my PowerBook?

DISCUSSION ---

1) Question: What is different about the PowerPC PowerBooks compared to other PowerBooks?

Answer: The PowerBook 5300, 2300, and upgraded 500/200 series PowerBook computers use a PowerPC 603e microprocessor which runs at 100 MHz (the PowerBook 5300ce runs at 117MHz). This processor is extremely fast compared to other PowerBook models (which use a 680x0 processor) when used with applications that are optimized for PowerPC. These applications are usually referred to as "native" or "fat binary." An application that is "fat binary" contains code for

PowerPC and 680x0 processors. A native or fat binary application can run up to 5 times faster on a PowerPC processor than it would on a 680x0 processor. The PowerPC 603e also has an integrated FPU and a 32k cache.

2) Question: I forgot the password that I entered into my Password Security control panel and now I cannot get into my computer. Is there anyway to bypass the password?

Answer: The password protection software bundled with the 5300/2300/190 series PowerBook computers is driver level security and cannot easily be bypassed. In fact, you will not even be able to reformat the drive if you do not have the password. If you do forget the password, take the PowerBook to an Apple-authorized dealer. The dealer can call our dealer help line and get a special code to bypass the security and reset your password. The dealer may charge a fee for this service, since it is a software issue, not a hardware issue, and they will probably ask for some verification that the PowerBook is your computer.

3) Question: If the PowerBook 5300/2300/190 series computers do not come with system disks, how do I restore my software in the case of a hard drive crash?

Answer: The PowerBook 5300/2300/190 series computers come with a utility called Floppy Disk Maker that you can use to back up the bundled software on the hard drive and/or make a functional set of system disks.

A "full" backup will require between 22 and 24 high density floppy disks and back up the following software:

• Apple Remote Access (1 disk)
• PowerBook Extras (3 disks) - Includes Apple IR File Exchange, Disk Image
    Mounter, Floppy Disk Maker, Password Security, Eric's Ultimate Solitaire
    Sampler, Spin Doctor, Super Maze Wars, and HyperCard Player.
• PowerTalk (2 disks)
• QuickDraw GX (4 disks)
• System Software (11-13 disks)
• WorldScript (1 disk)

Note that Floppy Disk Maker will NOT back up the following software:

• Adobe Acrobat Reader
• eWorld Online
• MacLinkPlus

The appropriate company should be contacted if any of the above software is lost or damaged.

A "minimum" backup of the system software will require between 11 and 13 high density floppy disks and will create a full set of system disks.

The computer will prompt you to make these disks every time it is turned on until the disks are made.

4) Question: Why is it that my Macintosh Quadra 800 seems faster than my PowerBook 5300 (or any PowerPC PowerBook) when running some applications?

Answer: You will only see a performance increase on the PowerPC (PPC) PowerBook when using native (optimized for the PowerPC) application programs. If you are using older programs written for the 680x0 processor, the PPC PowerBook computer must translate every instruction into a PowerPC instruction before executing it. When the computer is running in this mode, it is said to be in emulation mode. Since the System 7.5 Finder is mostly 680x0 code, Finder operations such as opening and closing windows may not be much faster than a 68040 computer such as a Quadra 800.

5) Question: How do the PowerBook 5300 series computers implement external video?

Answer: The PowerBook 5300 series computers implement a Processor Direct Slot (PDS) video card. This video card provides an external video connector on the rear panel of the computer. This video card provides 8-bit color at resolutions up to 832x624 using 512k VRAM. This card can be replaced by a third-party video card that offers more colors at higher resolutions, networking cards, or other cards that typically run through a PDS slot.

6) Question: What is special about the SVGA display that comes with the PowerBook 5300ce computer?

Answer: The SVGA display that comes with the PowerBook 5300ce computer offers a higher screen resolution than any other previous PowerBook computer models. It displays 800x600 pixels at thousands of colors.

7) Question: Can the PowerBook 5300/190 series computers use two batteries simultaneously?

Answer: Yes, the PowerBook 5300/190 expansion bay (where the floppy disk drive normally is) can accept a battery. Since the expansion bay does not pass AC power through, any battery used through the expansion bay will require its own power supply for charging.

8) Question: Does the PowerBook 5300ce computer support thousands of colors on both the internal display and an external monitor?

Answer: No. The PowerBook 5300ce computer has 1 MB of Video Ram (VRAM) dedicated to the internal display providing thousands of colors at an 800x600 (SVGA) resolution. Like all PowerBook 5300 series computers, the 5300ce computer comes with 512k VRAM for external monitors, providing 256 colors at an 832x624 resolution. The external video card can be upgraded to 1 MB VRAM with a third-party video card.

9) Question: Will the RAM from my PowerBook 200/500 series computer be compatible if I upgrade to the PowerPC 603e processor?

Answer: Yes, in fact you will automatically receive a 4 MB RAM upgrade since the PowerPC 603e logic board has 8 MB of RAM soldered on it, while the existing 200/500 logic boards have only 4 MB. So for instance, if you have a PowerBook 540c with 12 MB before the upgrade, you will have 16 MB after the upgrade.

10) Question: Sometimes I cannot seem to use my internal modem and print at the same time. Why is this?

Answer: On most PowerBook computer models that have only one serial port (190, 200, 500, 2300, and 5300 series computer), the serial port is mapped as a modem port. Under normal conditions this is not a problem - the internal modem can be used at the same time as a serial device such as a printer is being used. The exception to this is if you are using a communications program that does not use the Apple Communications Toolbox (CTB). If this is the case, you will need to respectively set the PowerBook, PowerBook Setup, or Express Modem control panel to Internal, Compatible, or "Use internal modem instead of modem port". The location of this setting will depend on what version of the modem and system software you have. When the PowerBook is set like this, the serial port cannot be used with serial devices. However, it can be used with LocalTalk devices.

The vast majority of communications programs that are developed for Macintosh right now will use the CTB. If you find that you have an older communications program, contact the manufacturer to see if there's an update.

11) Question: Sometimes I get errors when printing to my StyleWriter (or any serial printer). Why is this?

Answer: As discussed in the previous question, a PowerBook with a single serial port (190, 200, 500, 2300, and 5300 series computers) introduces some variables to serial printing. Three things must be true to print to a serial printer with a single serial port PowerBook:

* AppleTalk must be set to inactive in the Chooser or something other than LocalTalk must be selected in the Network control panel.

* If you have an internal modem you will need to respectively set the PowerBook, PowerBook Setup, or Express Modem control panel to External, Normal, or uncheck "Use internal modem instead of modem port" (see above). The location of this setting will depend on what version of the modem and system software you have.

* When selecting the serial printer in the Chooser, you must select the modem port or the combined printer/modem port. Do not select the printer port.

12) Question: I am trying to reset the parameter RAM (PRAM) on a PowerBook 5300 series computer but it does not seem to be working. What is the correct way to "zap" the PRAM on a PowerBook 5300 series computer?

Answer:

** WARNING ** Be aware that resetting the PRAM will reset such settings as the sound volume, trackpad speed, and screen brightness to their default value, and will purge the contents of a RAM disk if you are using one.

To reset the PRAM on a PowerBook 5300 series computer, restart the computer and hold down the Command (Apple), Option, P, and R keys. Wait for the computer to make its startup chime twice. Then you may release the keys. At this point the computer may shut down or continue to start up. If it shuts down, use the small power button on the back to restart the computer.

13) Question: Do the PowerPC PowerBook computers support PlainTalk Speech Recognition?

Answer: PlainTalk Speech Recognition will work with a PowerBook 5300 or 2300 series computer if you install PlainTalk version 1.4.1 and the English Speech Recognition system extension version 1.5. You can only use Speech Recognition with the built-in microphone.

Step 1

Download the PlainTalk software from the Web at the following URL:

http://speech.apple.com/speech/ptk/ptk.html

Step 2

Install PlainTalk 1.4.1 (English Speech Recognition and Text-to-Speech).

Step 3

Replace the Speech Recognition extension 1.4.1 with version 1.5.

14) Question: Can I use an external microphone with a PowerBook 5300 series computer?

Answer: The audio input port on the PowerBook 5300 series computers is a line-level input. This means that it requires an audio signal with a strength of at least 1 volt peak-to-peak. The PlainTalk microphone will not work with any existing PowerBooks. If you want to use an external microphone, you will need a microphone that outputs a line-level signal. Note that battery powered microphones do not necessarily provide a line-level signal.

Alternatively, you can run a standard microphone through a stereo system or a pre-amp that outputs a line-level signal.

15) Question: I have hooked up an external CD-ROM drive to my PowerBook 5300

series computer and I am playing an audio CD. When I bring up the AppleCD Audio
Player I can see the numbers moving but there is no sound coming through the
speakers, although I can hear the sound of regular multimedia CD-ROM discs fine.
Can I play an Audio CD through the internal speakers?

Answer: There is not a direct connection between the SCSI port and the speakers,
so direct play-through of audio CDs is not readily possible. Typically, only
Macintosh computers which have an internal CD-ROM drive can play-through audio
CD sound to the internal speakers. You will need to connect external speakers to
the external CD-ROM drive to hear the audio CD sound.

16) Question: My PowerBook computer's display is blurry or sometimes has
shadowing and ghosting effects. What can I do to correct this?

Answer: The technology used on the passive-matrix displays is susceptible to
shadowing and ghosting, since it does not individually address each pixel on
the display. Gray-scale passive-matrix displays are particularly susceptible to
these symptoms. The PowerBook 100, 140, 145, 145B, 150, 160, 165, 210, 230, 520,
190, and 5300/100 all use a gray-scale passive-matrix display.

Some suggestions to reduce the effects of the shadowing:

* Adjust the brightness and contrast settings of the display. Usually a lighter
contrast setting will look better.

* Use a darker desktop pattern. The effects of the shadowing will not be as
apparent with the darker background.

* Open the Monitors control panel and select "Black & White" instead of 16
Shades of Gray.

Although these tips can help mitigate the effects of the shadowing, some amount
of screen anomalies will always be present on gray-scale passive-matrix
displays.

17) Question: Do the PowerBook 5300 and 2300 series computers support the
GeoPort?

Answer: No, the PowerBook 5300 and 2300 series computers use a standard serial
port with 8 pins. The GeoPort requires a ninth pin to draw power from the
computer.

18) Question: Are Apple's current docking products, modems, and RAM still
compatible with a PowerBook 200 series computer which has been upgraded to
PowerPC?

Answer: Most, if not all docking products, internal modems, and RAM used with a
PowerBook 200 series computer should still be compatible after the PowerPC 603e
upgrade.

19) Question: Will my RAM and internal modem still be compatible after I upgrade my PowerBook 500 series computer to the PowerPC 603e processor?

Answer: The existing RAM card and internal modem should be compatible with the PowerPC 603e upgrade.

20) Question: Some PowerPC PowerBook computers come with 8, 16, 20, or 32 MB of RAM. Which models come with the RAM card slot filled?

Answer: Only the PowerBook 5300ce/117 32/1.1 GB and the PowerBook 2300c 20/1.1 GB come with RAM cards installed in their RAM slots. The 5300ce/117 32/1.1 GB comes with a 16 MB RAM card and 16 MB soldered on the logic board. The PowerBook 2300c 20/1.1 GB comes with a 12 MB RAM card and 8 MB on the logic board. All other models come with either 8 MB or 16 MB soldered on to the logic board, but no memory in the RAM card slot which is available for future expansion.

21) Question: What are the differences in the trackpads that come on the different PowerPC PowerBook computers?

Answer: The PowerBook 2300 and 190 series computers come with a "clickable" trackpad. With this kind of trackpad you can use the pad itself to click, double click, and drag, therefore never having to use the clicker. Because the PowerBook 5300 series computers were designed and implemented at an earlier date, they do not have the features of the clickable trackpad.

22) Question: Sometimes when I try to use the trackpad, the cursor jumps around uncontrollably. What causes this?

Answer: The trackpad works on a principal called coupling capacitance. As your finger moves over the surface, the trackpad evaluates the change in capacitance between two layers of measurement electrodes built into the surface of the trackpad.

The most common cause of a jumping trackpad cursor is moisture interference. If you have sweaty hands or if moisture collects on the pad, this may confuse the trackpad. Wiping off the trackpad with a cloth or tissue will usually fix this problem. If you find that it continues to get wet you may want to consider purchasing a teflon or mylar pad to fit over the pad to prevent the moisture from having direct contact with the pad. Before installing the pad, make sure the trackpad is clean. You can use a mild glass cleaner sprayed onto the cloth, not onto the trackpad itself.

Make sure only one part of your finger is touching the pad. You will not be able to use a pen or other object, it is designed to work with your finger. Also make sure that you are not resting your wrist on or very close to the pad. The trackpad may interpret this as your wrist touching it and make the cursor move in that direction. If you suspect either of these is causing the cursor's behavior, try raising your wrist in the air and only touch the pad with the tip of your finger. If the symptom goes away then you know that one of the above is

the cause and you should adjust the position of your wrist and or finger.

Oil or lotion can cause the same problem. Either do not use hand lotion, or consider purchasing a teflon or mylar pad to protect the pad. Before installing the teflon pad, make sure the trackpad is clean.

Jewelry may also cause interference. Try removing rings or bracelets and see if the jumping or erratic behavior disappears.

23) Question: My PowerBook 5300 series computer will not turn on at all. There is no reaction whatsoever when I press the power button. Is there any thing I can try before I decide I have to have it serviced?

Answer: It is possible that the power manager is corrupted and is not letting the PowerBook turn on. To reset the power manager, follow these steps:

Step 1

Remove the power adapter and battery from the computer.

Step 2

Push the reset button in the back of the computer and hold it for 30 seconds.

Step 3

Make sure the AC adapter is connected to a live AC outlet then connect the AC adapter to the back of the computer.

Step 4

Push the reset button in back again, but just briefly - the computer should power on. If it does not power on, push the main power button on the keyboard.

To prevent this from happening in the future, make sure the AC adapter is "live" at all times when connected to the PowerBook.

If the above procedure does not help, the PowerBook will need to be serviced.

24) Question: Where else can I go for answers about PowerBook computers?

Answer: If you have not done so already, check the other PowerBook-related FAQ documents in Apple's Technical Information Library (TIL). This library is available on the Internet at <http://til.info.apple.com/> and contains thousands of technical articles.

25) Where can I get the latest software updates for my PowerBook?

All Apple software updates are posted to the Internet, America Online and CompuServe:

- 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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