

've always been curious about the movie/video capability of my Mac. Can I do anything with a camcorder and a Performa 6112? Or do I need to spend hundreds of dollars to enable this pairing?— [Stuart, via the Internet](#).

To get your camcorder and Performa 6112 talking, you need to add the AV Video Technologies Card, popularly known as the AV Card. It was this card which was the difference between the AV and non-AV versions of the first generation PowerPC-based computers such as the 6100/60 and 6100/60AV. Depending on where you pick up such a card, however, it is likely you will have to spend hundreds of dollars.

The AV card no longer can be purchased separately from Apple. Although it may still be available as an upgrade via the Apple Service Price List (which means you will only be able to get it via an Apple Authorized Reseller) it will probably be cheaper to find the card through a remarketer such as Sun Remarketing or Shreve Systems. When the card was available as a separate item, it cost about \$600 US. Bought through an authorized reseller, it could cost more.

Given you have a Performa 6112, which is based on the Power Macintosh 6100/60, and given the the AV Card is a PDS card, you will also need the PDS Adaptor Card. Your computer has one expansion slot which can function as either a NuBus slot or a PDS, depending on what adaptor card is fitted. PDS Adaptor Cards can be had for about \$30 US and should be available from most resellers and mail order houses.

Once you have the AV Card fitted, your Performa 6112 becomes a quite decent tool for digital editing. The first advantage it provides is a second monitor port. This port, which uses a standard DB-15 connector rather than the giant HDI-45 port on your 6112's motherboard, provides 2MB of VRAM for 24-bit color at up to 832-by-624 pixels resolution and 16-bit color at up to 1024-by-768 pixels resolution.

With its S-video or analog composite I/O, capable of accepting PAL, NTSC and SECAM input, it also makes it possible to capture video to disk at 30 fps at up to 160-by-120 pixels (quarter screen) resolution and 16-bit color. Not professional quality, by any means, but more than acceptable for multimedia use, or for just impressing friends with a home video show complete with titles, voice overs and proper cuts and fades.

An additional expense you will need to consider is a full-blown video editing program such as Adobe Premiere or Avid's VideoShop. The video editing tools Apple supplies with the AV Card are adequate but, like SimpleText, hardly the tools of choice. — [Brian Forté](#)

My LC 575 has 8MB RAM, a 250MB HD and a 68LC040 processor. This is becoming annoying because I can't run the programs I want as there is not enough memory or it is not a Power Mac. I want to upgrade to PowerPC and I want to get a DOS card, 16MB RAM and 900MB added to my hard drive. According to a computer salesperson I spoke to I might not have enough slots. Can you tell me if I can upgrade to these things? — [Stuart, via the Internet.](#)

Except for the DOS card, you can upgrade your LC 575 to almost exactly the specs you want. Before you do, however, tally up your total costs: the upgrades you are considering, for example, aren't that far off the cost of a brand new Mac.

Your LC 575 has 4MB of RAM soldered to its logic board and one 72-pin SIMM slot. Said slot is currently occupied by a 4MB SIMM. Twelve megabyte SIMMs don't exist so you can't upgrade your Mac to 16MB of RAM but, with either an 8MB SIMM or a 16MB SIMM, you can increase your available RAM to either 12 or 20MB. In either case, you lose the 4MB SIMM currently in place.

When I checked in the last week of March 1996, an 8MB, 60 ns 72-pin SIMM cost about \$400 US and a 16MB, 60 ns 72-pin SIMM cost about \$800 US.

In the same week an internal 3.5" half-height 1 gigabyte hard drive cost about \$400 US. Since there is only one internal bay available and it is occupied by your extant 250MB drive, fitting an internal 1 gigabyte drive means losing the drive you currently have. If you don't want to do that, you can spend an extra \$100 US or so and buy your 1 gigabyte hard drive wrapped in an enclosure and complete with power supply and SCSI cable. This latter is my preferred option since such a device can travel with you to any new Mac you might one day buy.

The only PowerPC upgrade currently available for your 575 is the PowerCard series from DayStar Digital. This card, which fits into the 030 PDS on your 575's motherboard, is available in two flavors: a 50/66 MHz 601-based board which operates at twice the clock speed of the computer's motherboard (in your case, the upgrade would run at 66 Mhz) and a 100 Mhz 601-based board which operates at either three times or four times the speed of the computer's motherboard (in your case, the upgrade would run clock-tripled or three times as fast as the motherboard).

The PowerCard 100, which comes with Mac OS 7.5 and a 256 Kb level 2 cache, will cost about \$1,000 US and will make your Mac about as fast as a 7100/80. One important thing to note, however: a computer upgraded to PowerPC via a co-processor board such as the PowerCard 100 will not be able to run Copland, Apple's forthcoming and much rewritten version of the Mac OS.

There are currently no DOS-compatible co-processor cards available for the 575 and I doubt there ever will be. Even if one were to appear it would almost certainly be a PDS card, requiring a decision between upgrading to PowerPC or being able to run DOS and Windows software without resorting to SoftWindows.

The total cost of your upgrade, therefore, will range from around \$1,800 US (if you go to only 12MB of RAM and buy the 1 gigabyte drive as an internal replacement for your existing 250MB disk) to about \$2,300 US (if you go to 20MB of RAM and spend the extra to provide your hard drive with a case and cables).

Meanwhile, for around \$2,500 US you can buy a Performa 6220, which comes with a 75 MHz 603 CPU, 16MB of RAM and a 1 gigabyte hard drive. In addition it comes with: a quad-speed CD-ROM drive (your 575 has a double-speed drive); 16-bit sound I/O (your LC 575 offers 8-bit sound I/O except when playing music CDs); an internal 14.4 Kbps fax/modem; a video-capture card; a TV-Tuner card; an MPEG decoder card; a 15-inch display (it supports higher resolutions than the 575's built-in 14-inch display but is not as sharp or bright a screen) and more software—10 CD-ROM titles—than you can shake a stick at.

All the extras aside, this Mac gives your upgraded LC 575 a run for its money in straight performance terms and will run Copland when the new version of the OS ships. Like the 575, however, there are no options for adding a DOS co-processor card to this Mac and almost no prospect of their being one.

If running DOS software at hardware speeds is a high priority you will need to consider a PowerPC-based computer with either NuBus or PCI expansion slots (since such expansion slots—especially PCI slots—are being used as the basis of DOS/Windows co-processor cards currently or soon-to-be available from several companies, including Apple, Orange Micro and Reply Corp.).

PowerPC-based computers with NuBus slots have all but disappeared from dealer shelves and are not available new from Apple or PowerComputing, although Radius/UMAX may have a few models left in stock.

Of the current PCI-based Macs, only the Power Macintosh 7200/75 and 7200/90 and the PowerCurve 601/120 approach the cost of upgrading your LC 575. The PowerCurve 601/120, for example, is currently available for about \$3,000 US in the following configuration: 16MB RAM; 1 gigabyte hard drive; Quad-Speed CD-ROM drive; 16-bit sound I/O; Sony Multiscan 15 inch display (larger than your built-in 14-inch display but of comparable quality); 256 Kb level 2 Cache; 2MB VRAM (supports 24-bit color on the 15 inch display up to 832-by-624 pixels resolution) and more software than you can shake a stick at. — [Brian Forté](#)

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