

Speedy, spacious and indestructible

The 17-inch MacBook Pro is Apple and x86 at their best

Tom Yager, InfoWorld Test Center

Originally posted to [The Enterprise Mac](#)

The 17-inch MacBook Pro is everything that Apple's previous world-beater, the 17-inch PowerBook G4, was, but with a vastly superior (compared to the 32-bit PowerPC) dual-core CPU, dramatic improvements in memory and bus speed, a more powerful graphics processing unit, a first-rate display, a dual-layer DVD burner and--be still my heart--a configure-to-order option for a 100 GB, 7,200 RPM hard drive. These don't add up to incremental improvements over the 17-inch PowerBook G4. The 17-inch MacBook Pro is a quantum leap.

Way ahead of the 15-inch MacBook Pro

The [15-inch MacBook Pro](#) is the foundation for the 17-inch MacBook Pro's design, but the 17-inch model is no mere copycat with a bigger screen. The surface advantages that the 17-inch model enjoys over its lesser alternative include three USB 2.0 ports, two FireWire ports (one 400 and one 800 Mbps), an astonishingly rich speaker system, a dual-layer SuperDrive, and, yes, the super bright 17-inch diagonal LCD panel showing 1680 x 1050 pixels.

This notebook is comparable in heft to a desktop replacement-grade PC notebook with a 15-inch display. The thin case makes the MacBook Pro far less awkward to carry and use than machines in its weight class. In addition to the larger display, and the 17-inch MacBook Pro is decked out with standard peripherals that PC notebooks lack. For example, the MacBook Pros' dual scan DVI output with a full-size jack is mighty rare, and the 17-inch model's dual FireWire ports are full sized and supply power to external peripherals.

The new machine banishes the late model PowerBooks' cheap keyboard, twitchy trackpad, stagnant processor performance and sub-state-of-the-art graphics processing units. The 17-inch MacBook Pro's improved cooling, longer battery life, added I/O ports, larger display, higher durability and stronger, richer speakers create an unexpectedly wide gap between the 17 and the 15-inch MacBook Pros. This doesn't make the 15-inch model a bad machine. It just makes the 17-inch MacBook Pro a great one.

Performance

The 17-inch MacBook Pro is a 2.16 GHz, dual core, 32-bit x86 notebook. If you have the latest, fastest PowerBook G4, the 17-inch MacBook Pro will singe your eyebrows. You just need to sit tight until commercial Mac software gets rebuilt as Universal (native to both PowerPC and x86) Binaries. All will be set right in August, but this is a rush you'll want to beat.

The 7,200-RPM drive option (also available for the 15) gives the 17-inch PowerBook a potent kick that you can feel everywhere: Application load times, video and audio editing, DVD encoding, managing large digital images in Aperture, major software builds, delays going into and coming out of hibernation, the performance of the Parallels Desktop virtualization software, and total system responsiveness. It costs you some battery life and generates extra heat. But the faster drive helps take the reins off the faster CPU/GPU/chipset and RAM. I recommend it.

Heat, battery life and noise

The 17-inch MacBook Pro's operating temperature is a big improvement over the 15's. My 17-inch MacBook Pro eval unit, with a 7,200 RPM hard drive (a major source of heat), runs much cooler than the 15-inch model with a 5,400 RPM drive. My 17-inch model's battery life is, on average, 45-60 minutes longer than the 15-inch MacBook Pro's, even with the higher power draw of the faster drive and the larger display. The 17-inch MacBook Pro gets as warm as the 15, but with all that aluminum on top, it cools rapidly once the computing

load is reduced, and the larger notebook also responds nicely to a big of air circulation underneath. Giving the 15-inch MacBook Pro airflow underneath made no difference, and the only way to cool it off was to turn it off. The 17-inch MacBook Pro gets power and heat right.

If you're in a quiet room, the MacBook Pros emit a barely perceptible high-pitched whine while they're running on battery power. This quirk does not detract from the user experience, and the 17-inch MacBook Pro is dead silent compared to all desktop replacement-grade PC notebooks I've tested.

Audio

I'm running Apple's new Final Cut Express HD on the 17-inch MacBook Pro and for the first time with any notebook I've used--including the 17-inch PowerBook--I don't need headphones. The 17-inch MacBook Pro's four built-in speakers have a remarkable frequency and dynamic range. The lows tail off at around 70 Hz and the bass will distort if pumped up too high, but the lows are present even without emphasis, which in itself is remarkable for notebook speakers. Above the bass, the entire spectrum is rendered evenly with clarity and volume that I'm certain will surprise all who hear it.

In this podcast/iChat age, it's time to evolve beyond the \$0.19 (comparable model) omnidirectional mic element that Apple tucks under the MacBook Pros' left speaker grille. I would be delighted with the likes of [this little number](#) (unidirectional, \$0.99/ea, linked here to show I know a little about microphones), mounted under the display bezel. Toshiba does wonders with three like this to track your voice and reduce noise. Failing that, I'd settle for a mic input.

The 3.5mm stereo line input and output jacks carry either analog or S/PDIF digital optical signals at up to 96 KHz per channel. Keeping it digital means there's no injected noise, no potential for ground hum, and no need for compression. The MacBook Pro requires only \$5-\$8 Toslink cables, not a USB or FireWire adapter, to link to audio devices with optical digital ins and outs.

The display

Update: Glossy displays are now available! Apple is now offering a glossy display surface as a free configure-to-order option for MacBook Pros. I am a glossy, mirror-finish guy when it comes to photographs, so I've asked Apple to swap this MacBook Pro eval for a glossy one. I'll touch base if that happens. I'm actually rather excited about that.

This notebook's display quality thoroughly outclasses all PowerBooks', and I've yet to see any PC notebook display this bright, sharp and contrasty. Apple's drivers and frameworks make every Mac equal to the expectations of graphics and video professionals by optimizing for a given model's graphics processing unit and display. That is to say, any manufacturer could buy the LCD panel Apple chose for the 17-inch MacBook Pro, but none has the software and creative chops to make it look so sweet.

I desire little more than contrast and sharpness for productivity apps, but creative endeavors call for spot-on color. The 17-inch MacBook Pro leaves no questions about whether gray is standing in for black, orange is standing in for red, or ecru (or god knows what) is the machine's best approximation of white. The display's rendition of deep tones is striking: I have forest images with lots of shadow, and dark greens of the shaded moss that are mottled or lost on other displays are done justice on the 17-inch MacBook Pro. I am very pleased with this display.

Surviving (a)typical use

Being a short drive from Apple and within easy reach of a replacement, I beat on the 17-inch MacBook Pro. I needed to find out if the dip in quality that 17-inch PowerBooks took toward the end was addressed. I'll skip the details and share just my conclusions, but be assured that if I had treated a person as I treated this notebook, I'd be out on bond awaiting trial. My conclusions are as follows: The 17-inch MacBook Pro proved im-

pervious to violent vibration, moderate impact (not enough to deform the case) and compression. I have seen no effects from high (non-condensing) humidity or rapid transitions from dry to humid air or vice-versa. I forced the machine to overheat and it never shut down even after the entire case had become too hot to touch. All of my tests were performed while the machine was powered up and lit, with **du** . running in a Terminal window.

Many of the customers for this machine will treat it like gear. The 17-inch MacBook Pro will get stuffed in duffelbags and thrown into vans, helicopters and ships' holds, and sloppily packed into boxes full of heavy things with lots of corners. It'll be set on damp ground, it'll teeter on barstools over concrete floors at photo shoots. The 17-inch MacBook Pro is fast, bright, sweet-sounding and all of the things a notebook should be and which is Apple's specialty. But don't make assumptions based on its slender profile and alluring GUI. The 17-inch MacBook Pro is no wuss. I have no doubt in my skeptical mind that the machine I'm typing on right now will still be in active use, somewhere, five years from today. You see, Apple can make 'em like they used to.

Tom Yager is the chief technologist for the InfoWorld Test Center

Feel free to redistribute this document in its original form. If you republish a portion of this text, please attribute it to Tom Yager and InfoWorld.