



MAC FACTS

from

Mac Help Desk

SUPPORT, SALES, TRAINING & SERVICE

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A Message from Dru

Well, my summer travels are finally over. I spent a weekend in Brenham with daughter{and new teacher} Alisha, a weekend in Des Moines helping daughter Hillary pack for her move to (a much closer) Waco, and in between I went to Nashville to participate in a Woman's Conference. Whew! I'm glad *that's* all over.

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As we move into late summer (Autumn, for everyone else), I am again reminded that the Jewish High Holydays of [Rosh Hoshana](http://www.jewfaq.org/holiday2.htm) (<http://www.jewfaq.org/holiday2.htm>) and [Yom Kippur](http://www.jewfaq.org/holiday4.htm) (<http://www.jewfaq.org/holiday4.htm>) are once again upon us. To all of our Jewish client/friends - L'Shana Tovah - May you be inscribed in the book of life, prosperity and health, for this year and many more to come. We will be closed on Saturday September 27th for Rosh Hoshana and on Monday October 6th for Yom Kippur. Traditionally on Yom Kippur, Jews atone for their sins to G-d. But sins to their fellow man are a different matter. If I have offended you or caused you pain or suffering, if I have slighted you or caused ill will, if I have done any act that displeased you, please accept my humblest apologies.

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Everyone who's earning *too much* money raise your hands! Need a little cash to supplement your income? Part time? Full time? Holiday cash? **the Richman group** is hiring. Call me for details - 972-783-9790. Health, Wealth, Vim, Vigor, and Vitality can be Yours!

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With a Song in my heart – LoveSong, that is. For those who don't know (or remember), LoveSong is my band. Well. After an exhaustive 6 month search (and all those auditions), I've finally found a replacement singer for, now married, Diane. And that new singer is Janice Lurie. She recently moved here from Johannesburg, South Africa. If you need a great band that plays only love songs, check us out at <http://www.machelpdesk.com/lovesong>. We've available for weddings, parties, corporate events, pool parties, whatever! Call me at 972-783-9787 for pricing and availability.

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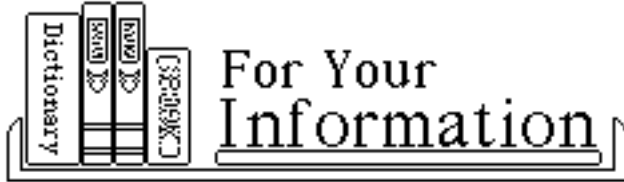
From better lips than mine - "The thing that distinguishes technogeeks from the rest of society is that technogeeks have absolutely no idea when to give up on a project. This unswerving fanaticism towards problem solving occasionally pays off, providing just enough positive reinforcement to

make the time investment seem worthwhile. “

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For Sale – I have a client/friend who wants to get rid of this old junk - ☺
G4 867Mhz/640MB RAM/60GB Hard Drive/2nd 60 GB (SCSI) Hard Drive
Apple 17” Studio Display
Extended Warranty (on G4 and Display) good until 9/19/04
iBook 700Mhz/384MB RAM/20GB Hard Drive/CDRW/DVD-ROM
Call me for pricing and info

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Power Mac G5 (1.8 GHz): Review

By Michael Murie with Ric Ford

Introduction

Not since the introduction of the G4 Power Macs has there been so much anticipation about a new Power Mac. In many senses, this is a very new machine, with major internal and external changes, and a very high-performance architecture throughout. The most notable change, however, is the processor chip (CPU).

The "G5" (PowerPC 970) is not just a new processor with a 64-bit architecture; it also represents a move from Motorola to IBM as the supplier of processors for Apple's professional line. After delays and problems with the G4's competitive position versus Intel processors, we can but hope that this change will mean good things for Apple in the future.

A standard, \$2,399 Power Mac G5 1.8 GHz single-processor system - the middle model in Apple's G5 range - was used for this hands-on review.

Basics

While the enclosure design echoes the previous G4 models, with handles at the four corners, the Power Mac G5 represents a major change in case design. The computer is taller than the previous Power Mac G4 models, which has already caused problems for some buyers trying to place the system in existing enclosures, and it is something you might want to think about when ordering.

Its brushed metal surface and front grill give the G5 a very distinctive, if somewhat "retro", appearance. It wouldn't look out of place in a 1950's sci-fi movie.

Out-of-Box Experience

The G5 comes in a large, and heavy, box. It says that the computer is "assembled in Taiwan." Open the box up and you are greeted by the typical Apple packaging with documentation, discs, keyboard and mouse in a styrofoam insert above the machine itself. In addition to the keyboard and mouse, there are also a USB extension cable and a monitor adapter.

Fit and finish were impressive. Turning on the computer, we noticed that it was quiet, but maybe not as quiet as we had expected. Perhaps after hearing everything about the new fan system, we expected to hear nothing. Instead there was a high-pitched whine that was audible 12 feet away in a very quiet room. But when we moved the new computer into a room next to a Power Mac G4, the sound of the G5 was practically drowned out. It is quiet, but not silent.

We noted that the fans do shut off sometimes - for example, when the computer is in energy-saver mode. All in all, this does seem to be a computer that will reduce the noise level in your environment (unless you have an Apple Cube).

The power cable has an extra rubber collar and it's possible to insert the plug casually and think it's seated correctly, when, in fact, it is not. It took us a minute or two to figure out why the computer wasn't powering up. Pushing the plug in all the way fixed the problem.

The mouse is the familiar Apple Pro Mouse, just like the Power Mac G4's (but white). The keyboard, however, was a change. Apple's new keyboard is better than the old Power Mac G4's keyboard. The keys are tilted a little more, and the back of the keyboard has more depth. We need to spend a few more weeks with it to see if we really like it.

Mac OS X 10.2.7 was installed on the computer. As this is similar to the existing release, we'll not spend much time on the operating system.

Two things that caught our attention immediately were the Firewire and USB sockets at the front of the machine (very useful for connecting video cameras and cameras) and the cover for the SuperDrive's tray. The latter snaps up and down rapidly, and once again reminds us of a 1950's sci-fi movie.

Perhaps the most interesting thing about this computer, apart from the appearance of the case, is that it's still a Mac running Mac OS X "Jaguar". It runs fast, but it's still a Mac. Once you turn it on, you tend to forget about how neat the case is, and about the new processor inside, until you glance over at the computer.

Apple includes a wide range of applications, which for some people may be all they need. iMovie, iDVD, iTunes, iPhoto, and iCal are all very usable applications. There's also Quickbooks, a basic accounting application, Safari and Internet Explorer 5.2.

We tested iDVD, using the included DVD-R blank disc, and it worked without a problem. We could not get it to work with a DVD+R disc, however.

The new case does warrant some discussion. Beyond the brushed aluminum and front-mounted ports, the new cooling system is notable because it does reduce the noise the computer makes. Although this case is three inches taller than the Power Mac G4 enclosure, it has fewer places for adding drives, accommodating only two internal hard drives and one removable drive.

Opening the case is as simple as opening the Power Mac G4 case. Pull up a metal latch at the back of the case, and then you can open down the right-hand side of the case. You must then pull out a plastic cover and a fan assembly. Again, on the inside of the machine, you can't help but be impressed by its fit and finish.

Some readers have complained about the lack of space for additional drives. While we can see it as an issue, with the large-capacity hard drives available, and Firewire 400 and 800 connectors, we're not sure that it's a major issue. There are three Firewire connectors: a 400 and 800 on the back, and a 400 on the front. If you have a Power Mac G4 with two Firewire devices (e.g. a hard drive and an iSight camera) then you'll be using the front port for one of those devices, unless you want to get into other wiring options, such as daisy-chaining devices that offer two ports, or using a hub.

The Power Mac G5's new architecture, while compatible with most current devices and software, does have one sticking point: its PCI expansion slots (in all models) require cards operating at 3.3 Volts. The Power Mac G5 is incompatible with 5-Volt cards, such as older Mark of the Unicorn audio cards.

Performance

Although performance is the Power Mac G5's raison d'entre, benchmarking is a bit of a black art. What do the numbers really mean?

For this review we ran several new Mac OS X benchmarking applications, including Xbench, an all-purpose benchmarking utility that also captures some system configuration details; Speedrun, which tests graphics, disk, CPU and RAM performance; Cinebench 2003, which focusses on graphics with tests of rendering, shading and OpenGL performance; and CocoaBench, which seemed less consistent and sophisticated than the others.

Unfortunately, the results you get from these programs can vary widely, depending upon the fine points of your system configuration (e.g. file-sharing status, monitor settings, Energy Saver settings, and what other programs are running). There's also the issue of whether or not the benchmark program has been tuned for the hardware. Cinebench notes that the current version is not optimized for the G5, and an update for the G5 is planned.

Of course, very few applications are optimized yet for the G5, people in the real world rarely spend their time running synthetic benchmarks, and they often have file-sharing turned on. So we also performed some "real world" tests, comparing the Power Mac G5 1.8 GHz with a Power Mac G4/733 model. Why this comparison?

The Power Mac G4/733 was the machine we have been using for day-to-day work. We refused to buy Apple's embarrassingly unpleasant "wind-tunnel" G4 systems. We doubt that many customers are going to trade in new dual-1.2GHz computers right away. Most wait a couple of years before updating their hardware. We also ran some of these tests on our similar Power Mac G4/800 to make sure that our results were consistent. (This actually pointed out some errors in our testing methodology, which we corrected.)

These are the real-world tests we completed in time for this review:

Finder File Duplication

We created a folder containing ten copies of a 20.7-MByte file (for a total of 207.5 MBytes) and timed how long it took to duplicate the folder in the Finder. This was primarily a test of disk

performance.

QuickTime Video Conversion

Using QuickTime Pro 6.3 and QuickTime Player, we exported a 50-second DV file to MPEG-4, as a test of both the storage system and processing speed.

iTunes Encoding

In a similar test, but one that's even more common in daily life, we used iTunes to rip a Beatles tune from CD to MP3.

We also ran special-purpose benchmarking applications on an iBook/700, a Power Mac G4/733, Power Mac G4/800 and the Power Mac G5/1.8GHz. In addition, we got benchmark test results from MacInTouch readers for a dual-processor Power Mac G5/2GHz and for both the single- and dual-processor 1.25GHz Power Mac G4 models that Apple is currently selling.

As noted, these applications can be very sensitive to small configuration changes, and we got a big Xbench boost from selecting "Highest" performance in the Mac OS X Energy Saver control panel and turning off file-sharing.

Our real-world results are probably more meaningful, ultimately, but it's interesting to analyze the results of the benchmarking applications for trends, and it's easy to run them on your own Macs for comparison.

Results

Our real-world tests turned up no big (nor bad) surprises. File duplication exhibited the smallest improvement, but it did show a meaningful advantage for the Power Mac G5 over the G4 models, and the advantage was highlighted by results from the benchmarking utilities.

The differences in performance for iTunes and QuickTime encoding were also substantial. Neither was what you'd calculate in a straight clock-for-clock comparison, but system performance doesn't scale linearly. To estimate that a 1.8GHz G5 would be 2.4 times as fast as a 733MHz machine ignores many technical details and such factors as disk performance and memory size.

The doubling of speed we saw in the G5 model is actually fairly impressive, and we were not running software optimized for the G5 processor, which could make a far bigger difference for applications written especially for the new CPU. (Memory size didn't seem to be a significant issue in the encoding tests, since the G4/800, with 768 MBytes of RAM, performed similarly to the G4/733 with just 256 MBytes. The G5 had Apple's standard complement of 512 MBytes installed.)

We didn't have a "real world" test of pure graphics performance, nor of database processing, but the encoding tests and benchmark applications appear to confirm Apple's claims of high performance throughout the Power Mac G5 architecture. We expect that this performance will benefit all types of applications, although it may shine the brightest for number-crunching applications compiled specifically for the G5 CPU.

Graphics, of course, will depend heavily on the video card installed, but the benchmarking utilities showed lots of memory and graphics bandwidth to benefit real-world productivity, doubling or almost tripling the performance of our G4 models. (Reader tests of Power Mac G4 1.25GHz models, some of which had been substantially upgraded, were closer to the Power Mac G5 in their results, but still showed significant differences.)

There are also other factors that go into our *perception* of computer speed. Restarting both machines, we found that the Power Mac G4/733 took 76 seconds to restart, while the Power Mac G5 was done in 55 seconds (both had the standard Mac OS X installation.) Launching Final Cut

Pro took twice as long on the Power Mac G4 (10 seconds) as on the Power Mac G5 (5 seconds).

We applied a Gaussian blur in Final Cut Pro to our test video clip and then rendered the effect. It took 66 seconds on the Power Mac G5, 193 seconds on the G4. (The smaller memory configuration on the Power Mac G4 may, or may not, have affected results.)

Conclusions

Buying a brand-new machine design, whether car or computer, is always a risky proposition. It often takes a year or two to get the kinks out, and you never know at the beginning what will be improved and fixed in the next few revisions.

At the same time, buying an older machine after a new one has arrived doesn't seem to make a lot of sense, unless you can get the old model at a substantial discount.

If you have a single-processor Power Mac G4 running at less than 1 GHz, then buying the 1.6- or 1.8-GHz Power Mac G5 clearly provides a big boost in performance. If you have a Power Mac G4 dual 1.25 GHz system, then you'll probably want to buy a dual G5, and we probably would wait a year for Apple to release the faster 3-GHz dual-processor model that Steve Jobs promised in his introduction of the new computers.

While most applications seem to run fine on the Power Mac G5, to fully enjoy the G5's architectural advances you'll have to wait for a future release of the operating system and for developers to update applications.

The Power Mac G5 is a major step forward for Apple, not so much because of the speed boost the new processors offer, as for its lead-in to a future of new and faster processors, something that had become clouded over the past few years with Motorola's G4.

At the same time, we don't think customers can really go wrong with the new Power Mac G5s. They're fast now (even without the new operating system or custom software) and, with pricing similar to SuperDrive-equipped G4 models, offer improved value. The low-noise design is also a real benefit, and we have to applaud Apple for turning around the G4 "wind-tunnel" fiasco so completely and creatively.

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NEWSLINE

Hiawatha Bray describes in a Boston Globe column how the principles of biodiversity apply also to the computing "ecosystem" (to use a buzzword popular among personal computer CEOs...):

Recently, a fatal fungus has flared up among the world's bananas. And since they're genetically almost identical, the entire global crop is at risk. So botanists are busily carrying out genetic engineering experiments aimed at introducing a little more diversity into the banana population.

The millions who use Microsoft Corp. software should have a good deal of sympathy for the banana growers. They are after all, in the same boat, and they don't even have Harry Belafonte to cheer them up.

Computer administrators spent much of August fending off a series of computer worms that infect only machines embedded with the DNA of Bill Gates. Meanwhile, *Apple Computer Inc.'s Macintosh computers are immune*, as are Unix and Linux boxes.

We'll skip the tedious arguments over which operating system is best - although, come to think of it, have you ever heard anyone claim that Windows was the best? Never mind. The real issue isn't superiority, it's diversity. We live in a computing monoculture, in which nearly everybody uses the same type of software running on the same type of hardware, and consequently gets infected with the same kinds of malware. (*Hmmmm...yet another reason to own a Mac -Ed*)

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Apple Announces Faster iMacs

Faster Processors, Faster Memory, Faster Graphics and Faster I/O

Apple® today announced significant enhancements to its popular line of iMac® desktop computers, including faster PowerPC G4 processors running up to 1.25 GHz, faster 333 MHz DDR memory, faster NVIDIA graphics and the move to the faster USB 2.0 standard.

“The iMac, with its high quality 15- or 17-inch widescreen displays and bundled iLife applications, is the ultimate computer for working with digital photos, digital music and digital video,” said Philip Schiller, Apple’s senior vice president of Worldwide Product Marketing. “The ease-of-use and stunning design of the iMac remain unparalleled in the industry.”

The new iMacs sport faster PowerPC G4 processors running at 1.0 GHz in the 15-inch model and 1.25 GHz in the 17-inch model. Both models include 256MB of faster DDR SDRAM running at 333 MHz and an 80GB Ultra ATA/100 hard disk drive. The 17-inch model also includes NVIDIA’s GeForce FX 5200 Ultra graphics processor with 64MB of DDR video memory.

Designed around an ultra-compact base, the iMac’s flat panel display appears to float in mid-air, allowing users to effortlessly adjust its height or angle with just a touch. The iMacs offer two FireWire® 400 and three high-speed USB 2.0 ports for fast, simple, plug-and-play connections to devices such as digital cameras, DV camcorders, the iPod™ and the iSight™ video conferencing camera. The iMac also offers the latest in wireless communications with support for 54Mbps AirPort® Extreme 802.11g wireless networking and optional built-in Bluetooth for wireless connectivity to a range of peripherals such as cell phones and PDAs.

Every iMac includes Mac OS X “Jaguar” and Apple’s iLife applications, a completely integrated suite offering iTunes® 4 for managing and purchasing digital music, iPhoto® 2 for organizing and sharing digital digital photos, iMovie® 3 for making movies and iDVD™ 3 for burning Hollywood-style DVDs. Also included is a collection of productivity and entertainment titles such as Quicken 2003 Deluxe, World Book 2003 Edition and the recently introduced Tony Hawk’s Pro Skater 4.

Pricing & Availability

The 15-inch flat panel iMac, for a suggested retail price of \$1,299 (US), includes:

- 1 GHz PowerPC G4 processor with Velocity Engine™;
- 256MB of 333 MHz DDR SDRAM;
- 32x Combo DVD-ROM/CD-RW optical drive;
- NVIDIA GeForce4 MX graphics processor with 32MB video memory;
- two FireWire 400 and three USB 2.0 ports;
- internal support for AirPort Extreme wireless networking and Bluetooth;
- 80GB Ultra ATA/100 hard drive running at 7200 rpm; and
- Apple Pro Speakers.

The 17-inch widescreen flat-panel iMac, for a suggested retail price of \$1,799 (US), includes:

1.25 GHz PowerPC G4 processor with Velocity Engine;
256MB of 333 MHz DDR SDRAM;
4x SuperDrive™ DVD-R/CD-RW optical drive;
NVIDIA GeForce FX 5200 Ultra graphics processor with 64MB video memory;
two FireWire 400 and three USB 2.0 ports;
internal support for AirPort Extreme wireless networking and Bluetooth;
80GB Ultra ATA/100 hard drive running at 7200 rpm; and
Apple Pro Speakers.

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Apple Introduces New 20GB and 40GB iPods Up to 10,000 Songs in Your Pocket

Apple® today announced new 20GB and 40GB models of its best-selling iPod™ digital music player. The new 40GB iPod holds up to 10,000 CD-quality songs (playing each song back-to-back takes a month) in a stunning enclosure that is lighter and thinner than two CDs. iPods are available in three models: a 10GB model for just \$299 (US), the new 20GB model for \$399 (US) and the new 40GB model for \$499 (US); and offer the perfect combination of ease of use, storage capacity, audio performance and ultra-portable design.

“iPod is the best-selling digital music player and the ‘gold standard’ to which all portable music players are compared,” said Steve Jobs, Apple’s CEO. “The iPod and the iTunes Music Store offer music lovers an unbeatable combination that our competitors can't even come close to.”

iPod is the only portable music player with Apple’s patent pending Auto-Sync, an innovative feature that automatically downloads your entire digital music library onto iPod and keeps it up-to-date whenever the iPod is plugged into your Mac® or Windows PC using FireWire® or USB 2.0. The ultra-portable iPods are designed with a solid-state “no moving parts” navigation wheel and backlit buttons for precise, effortless navigation through thousands of songs; an elegant dock for easy syncing and charging with an audio line out for quick connection to a home stereo or powered speakers; an “On-The-Go” playlist so users can build a playlist right on their iPod; a customizable main menu so users can promote the features they use most often to their top level menu; and a rechargeable lithium-ion battery for more than eight hours of continuous music.

The iTunes® Music Store has sold over ten million songs since its launch just over four months ago and is the perfect companion to the iPod. Now listeners can easily find, purchase and download their music online with one click. Music purchased from the iTunes Music Store is downloaded right into Apple’s popular iTunes 4 digital music jukebox, where users can easily manage their music library, create playlists, burn custom CDs and easily download their entire music library into their iPods for on-the-go listening anywhere. The iTunes Music Store will be available to Windows users by the end of this year.

Pricing & Availability

New iPods for Mac and Windows PCs are available today for a suggested retail price of \$299 (US) for the 10GB iPod, \$399 (US) for the 20GB iPod and \$499 (US) for the 40GB iPod through the Apple Store® (www.apple.com), Apple’s retail stores and Apple Authorized Resellers. Laser engraving is available for \$19 (US) and can include two lines of text with up to 27 characters per line. The new iPods support high-speed syncing via USB 2.0 with Windows; a separate USB 2.0 cable, available at <http://www.apple.com/ipod/accessories.html> for \$19 (US) is required.

All iPod models include earbud headphones, an Apple iPod power adapter, a FireWire cable and a 4-pin-to-6-pin iPod FireWire adapter. 20GB and 40GB iPod models also include the iPod Dock,

carrying case and wired remote; these optional accessories can be ordered for 10GB iPod models through the Apple Store. iPod requires a Mac with FireWire port, Mac® OS X version 10.1.5 or later (Mac OS X v10.2 or later recommended) or a Windows PC with FireWire or USB 2.0 port, or Windows-certified FireWire or USB 2.0 card, Windows Me, Windows 2000, or Windows XP Home or Professional. A CD containing iTunes* for Mac OS X and MUSICMATCH Jukebox Plus 7.5 software is included with all iPod purchases.

*Some iPod features require a Mac and iTunes.

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iTunes Music Store Sells Ten Millionth Song

Apple® today announced that music fans have purchased and downloaded over ten million songs from the iTunes® Music Store since its launch just over four months ago, averaging over 500,000 songs per week. The ten millionth song, “Complicated” by Avril Lavigne, was purchased and downloaded at 11:34 p.m. (PDT) on September 3.

The combination of the iTunes digital music jukebox, the pioneering iTunes Music Store and the market-leading iPod™ digital music player provide users with a complete solution for buying, managing and listening to their digital music collections anywhere. The iTunes Music Store will be available to Windows users by the end of this year.

“Legally selling ten million songs online in just four months is a historic milestone for the music industry, musicians and music lovers everywhere,” said Steve Jobs, Apple’s CEO. “Apple offers the only complete solution for digital music with iTunes and the amazing iPod, which now holds 10,000 songs in your pocket.”

“We are honored and grateful to be one of the top selling artists in the iTunes Music Store,” said Chris Martin, singer/songwriter of the Grammy-award winning band Coldplay. “It’s clear Apple has delivered a working and successful platform for music fans to discover artists and purchase both albums and single songs instantly with ease. We embrace these efforts enthusiastically and see them as the future of our business.”

The revolutionary online music store offers songs from major and independent music labels, groundbreaking personal use rights, and one-click download directly into Apple’s integrated digital jukebox software, iTunes—all for just 99 cents per song. Users can listen to free 30-second previews of any song in the store, then purchase and download their favorite songs or complete albums in pristine digital quality. Songs can be burned at no extra cost onto an unlimited number of CDs for personal use, played on up to three computers, and listened to on an unlimited number of iPods.

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Thanks for taking the time to read this month's newsletter. Hope you enjoyed it. If you have any comments or suggestions for stories (or would even like to write a story - hint, hint, hint), please send them to me at machelpdesk@comcast.net Feel free to share this newsletter with a friend. The newsletter archives are located at <http://www.machelpdesk.com/page6a.html>. Y'all come back now, y'hear!