

Apple's New G5 Is Impressive Despite Questionable Benchmarking

Martin Reynolds

Apple Computer's benchmarking method casts serious doubt on its claim to have produced the world's fastest PC. Nonetheless, Apple users should welcome the upgrade.

NEWS ANALYSIS

Event

On 23 June 2003, Apple introduced a new line of Power Mac PCs using G5 processors. Apple claims that the fastest of these PCs is the world's fastest PC.

Analysis

Apple's benchmarking method raises serious questions. Apple chose not to use the published System Performance Evaluation Cooperative (SPEC) benchmarks for a competitive Dell Computer model. Instead, Apple reran the tests using a lower-performing Gnu Compiler Code (GCC) software configuration available on both the G5 and Intel Xeon platforms. Apple said that using GCC on both systems allowed a pure hardware comparison by eliminating common SPEC optimizations. However, this approach also eliminated legitimate optimizations, possibly slanting the test to favor the G5. Only G5 performance results using a SPEC-optimized compiler will resolve this question. Apple also used a set of multimedia benchmarks that are difficult to verify and include heavily optimized PowerPC code. These results — which we are inclined to find credible — would be more convincing if not for Apple's approach to the SPEC results. Apple is by no means alone in making questionable market claims, but Gartner believes it should be more careful in making and supporting such claims.

This type of benchmarking casts serious doubt on Apple's marketing claims but should not detract from a recognition of the solid performance of these computers. The new G5 systems reflect leading-edge design and advanced PC architecture, with features that will give the Mac platform a much-needed boost:

- Serial ATA (Advanced Technology Attachment)
- DDR400 with a 128-bit interface
- HyperTransport
- USB (Universal Serial Bus) 2.0
- A 1GHz processor bus
- Gigabit Ethernet
- 64-bit PCI (Peripheral Component Interconnect)
- A DVI (Digital Visual Interface) connector

These models certainly equal Intel's advanced 875 platform and should allow Apple to go until 2005 without a major platform refresh.

In any case, Apple's market share does not really depend on performance. The company's user interfaces, packaging and competence with content keep customers coming back. Moreover, higher profit margins allow Apple to deliver aesthetically exotic packaging and innovative technology, attributes for which its customers will pay premium prices. Apple users will welcome the update, but we see no reason for PC users to switch unless the Mac platform offers a compelling and sustainable performance benefit for their specific needs.

Analytical Source: Martin Reynolds, Gartner Research

Written by Terry Allan Hicks, Gartner News

Recommended Reading and Related Research

- "Intel Remains Well Positioned Despite Tepid First Quarter Results" — Intel's product strategy is still sound. **By Martin Reynolds**
- "AMD's Opteron Processor Has Strengths Beyond the 64-Bit Hype" — Advanced Micro Devices' (AMD's) new server processor should be competitive in certain market segments. **By Martin Reynolds and John Enck**

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