



Intel Corporation (Intel) commissioned Principled Technologies (PT) to compare the performance on Microsoft Windows Vista of an Intel vPro technology based PC with that of three other platforms on a common predictive modeling and business intelligence scenario. We tested a scenario that involves Microsoft Office Excel 2007 running a Monte Carlo simulation. We compared the performance of the following four platforms on this scenario:

- Intel vPro technology with Intel Core 2 Duo processor E6700 on an Intel 965 (DQ965GF) motherboard
- Intel Pentium D processor 930 on an Intel D945GTP motherboard
- Intel Pentium 4 processor 630 on an Intel D945GTP motherboard
- Intel Pentium 4 processor on an Intel D865GBF motherboard

Scenario: running a Monte Carlo simulation in Microsoft Excel 2007

Jordan Michaels, a GMC auto dealer, believes that demand for new Envoy's will be normally distributed with a mean of 200 and standard deviation of 30. His cost of receiving an Envoy is \$25,000, and he sells an Envoy for \$40,000. He can sell half of all the leftover Envoy's for \$30,000. He is trying to decide how many Envoy's to order, so he builds a spreadsheet with models of orders of 200, 220, 240, 260, 280, and 300 Envoy's. Jordan is able to calculate the number of Envoy's he should order for his dealership by using a Monte Carlo simulation that runs on Microsoft Office Excel 2007.

The Intel vPro technology-based PC with the Intel Core 2 Duo processor E6700 outperformed the older systems on this Monte Carlo simulation due to the faster processor and chipset and the heavily multithreaded nature of Microsoft Office Excel 2007. The improvement is likely due to the processor's larger L1 cache, faster memory access, and, of course, multiple cores.

For more information on these tests and to see the full test report, visit:
[www.principledtechnologies.com/cclients/reports/Intel/vProVistaPred.pdf](http://www.principledtechnologies.com/clients/reports/Intel/vProVistaPred.pdf).

PERFORMANCE RESULTS (seconds)				TASK	COMPARATIVE RATING			
Intel Pentium 4 processor 2.8 GHz on Intel D865GBF	Intel Pentium 4 processor 630 on Intel D945GTP	Intel Pentium D processor 930 on Intel D945GTP	Intel vPro with Core 2 Duo processor E6700 on Intel DQ965GF		Intel Pentium 4 processor 2.8 GHz on Intel D865GBF	Intel Pentium 4 processor 630 on Intel D945GTP	Intel Pentium D processor 930 on Intel D945GTP	Intel vPro with Core 2 Duo processor E6700 on Intel DQ965GF
14.92	14.60	14.46	4.63	Running a Monte Carlo simulation	1.00	1.02	1.03	3.22

KEY FINDINGS

- The Intel® vPro™ technology based PC featuring the Intel® Core™ 2 Duo processor E6700 yielded significant performance advantages for users on our Monte Carlo simulation test.
- The Intel vPro technology based PC with the Intel Core 2 Duo processor E6700 finished the task 3.12 times faster than the Intel® Pentium® D processor 930 based PC.
- The Intel vPro technology based PC with the Intel Core 2 Duo processor E6700 also finished the task 3.22 times faster than the Intel® Pentium® 4 processor 2.8GHz based PC.
- These performance improvements translate into multi-second time savings that would be noticeable to users.

