DELL LATITUDE LAPTOPS & MICROSOFT WINDOWS 7: BETTER TOGETHER

At Dell, we're focused on helping our customers get the most out of their IT investments. That's why we commissioned Principled Technologies®, a third party test group, to test how Dell™ Latitude™ laptops running Microsoft® Windows® 7 can improve system performance, increase user efficiency and help reduce overall operating expenses. To exemplify this we tested nearly all of our Latitude laptops, running Microsoft® Windows® 7, against the older Latitude D610 and D620, both running Microsoft® Windows XP, and below are highlights of the results:

- **Up to 120% Better Performance**

  New Latitude laptops running the Windows 7 operating system performed up to 120% better than the D610 and up to 68% better than the D620 in SYSmark 2007 Preview test which measures overall system performance.

- **Almost Four Additional Hours of Battery Life**

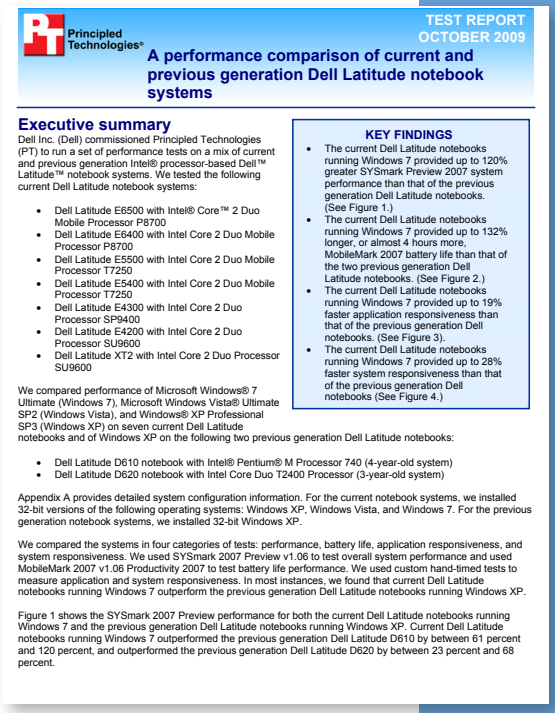
  Based on MobileMark 2007 testing, new Latitude laptops running the Windows 7 operating system with 6-cell batteries can provide up to 132% (over four hours) longer battery life over the D610 with a 6-cell battery, and up to 112% (almost four hours) longer battery life than the D620 with a 6-cell battery.

- **Up to 19% Faster Application Responsiveness**

  Application responsiveness was tested in three ways: opening Microsoft® Office® 2007 PowerPoint, Excel and Word documents, installing/inserting a USB key and copying files locally. In these tests new Latitude laptops running the Windows 7 operating system were up to 19% faster than the Latitude D610 and up to 13% faster than the Latitude D620.

- **Up to 28% Faster System Responsiveness**

  When testing boot time, time to go in and out of standby/ hibernate and shutdown time a new Latitude laptop running the Windows 7 operating system responds up to 28% faster than the D610 and up to 14% faster than the D620.



Principled Technologies®

TEST REPORT
OCTOBER 2009

A performance comparison of current and previous generation Dell Latitude notebook systems

Executive summary

Dell Inc. (Dell) commissioned Principled Technologies (PT) to run a set of performance tests on a mix of current and previous generation Intel® processor-based Dell™ Latitude™ notebook systems. We tested the following current Dell Latitude notebook systems:

- Dell Latitude E6500 with Intel® Core™ 2 Duo Mobile Processor P8700
- Dell Latitude E6400 with Intel Core 2 Duo Mobile Processor P8700
- Dell Latitude E5500 with Intel Core 2 Duo Mobile Processor T7250
- Dell Latitude E5400 with Intel Core 2 Duo Mobile Processor T7250
- Dell Latitude E4300 with Intel Core 2 Duo Processor SP9400
- Dell Latitude E4200 with Intel Core 2 Duo Processor SU9600
- Dell Latitude XT2 with Intel Core 2 Duo Processor SU9600

KEY FINDINGS

- The current Dell Latitude notebooks running Windows 7 provided up to 120% greater SYSmark Preview 2007 system performance than that of the previous generation Dell Latitude notebooks. (See Figure 1.)
- The current Dell Latitude notebooks running Windows 7 provided up to 132% longer, or almost 4 hours more, MobileMark 2007 battery life than that of the two previous generation Dell Latitude notebooks. (See Figure 2.)
- The current Dell Latitude notebooks running Windows 7 provided up to 19% faster application responsiveness than that of the previous generation Dell notebooks. (See Figure 3).
- The current Dell Latitude notebooks running Windows 7 provided up to 28% faster system responsiveness than that of the previous generation Dell notebooks (See Figure 4.)

We compared performance of Microsoft Windows® 7 Ultimate (Windows 7), Microsoft Windows Vista® Ultimate SP2 (Windows Vista), and Windows® XP Professional SP3 (Windows XP) on seven current Dell Latitude notebooks and of Windows XP on the following two previous generation Dell Latitude notebooks:

- Dell Latitude D610 notebook with Intel® Pentium® M Processor 740 (4-year-old system)
- Dell Latitude D620 notebook with Intel Core Duo T2400 Processor (3-year-old system)

Appendix A provides detailed system configuration information. For the current notebook systems, we installed 32-bit versions of the following operating systems: Windows XP, Windows Vista, and Windows 7. For the previous generation notebook systems, we installed 32-bit Windows XP.

We compared the systems in four categories of tests: performance, battery life, application responsiveness, and system responsiveness. We used SYSmark 2007 Preview v1.06 to test overall system performance and used MobileMark 2007 v1.06 Productivity 2007 to test battery life performance. We used custom hand-timed tests to measure application and system responsiveness. In most instances, we found that current Dell Latitude notebooks running Windows 7 outperform the previous generation Dell Latitude notebooks running Windows XP.

Figure 1 shows the SYSmark 2007 Preview performance for both the current Dell Latitude notebooks running Windows 7 and the previous generation Dell Latitude notebooks running Windows XP. Current Dell Latitude notebooks running Windows 7 outperformed the previous generation Dell Latitude D610 by between 61 percent and 120 percent, and outperformed the previous generation Dell Latitude D620 by between 23 percent and 68 percent.

Based on the efficiency analysis in Principled Technologies' report the median time gained from a new Dell Latitude laptop running Microsoft® Windows® 7 is up to 1.4 minutes per day. This may seem like an insignificant amount but when we extrapolate that across a 260 day work year that value adds up to 0.75 work days saved annually. If we assume that 80% of the time saved can be contributed to increased productivity an employee with a base yearly salary of $50k could reduce operating expenses by up to $116 annually. Going one step further, for a business with 100 employees this translates to a potential total savings of over $11k per year.

For full test results and methodologies see the complete report posted at:
http://principledtechnologies.com/clients/reports/Dell/Latitude_1009.pdf

Source: Principled Technologies, "A Performance Comparison of current and Previous Generation Dell Latitude notebook Systems" an October 2009 report commissioned by Dell. Actual performance will vary based on configuration, usage and manufacturing variability.