KWIK: Ultrabook Resume Scenario (Long Duration)

http://www.intel.com/performance/resources

Version 2011-11
Rev. 1

Information in this document is provided in connection with Intel® products. No license, express or implied, by estoppels or otherwise, to any Intellectual property rights is granted by this document. Except as provided in Intel's Terms and Conditions of Sale for such products, Intel® assumes no liability whatsoever, and Intel® disclaims any express or implied warranty, relating to sale and/or use of Intel® products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright or other Intellectual property right. Intel® products are not intended for use in medical, lifesaving, or life sustaining applications.

This paper is for informational purposes only. Intel® assumes no responsibility for any errors contained in this document. INTEL® MAKES NO WARRANTIES, EXPRESS OR IMPLIED, IN THIS SUMMARY.

Intel® may make changes to specifications and product descriptions at any time, without notice.

Designers must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined." Intel® reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them.

Intel® Processors may contain design defects or errors known as errata. Current characterized errata are available on request.

Hyper-Threading Technology in a desktop system requires a computer system with an Intel® Core™ i7, Intel® Core™ i5, Intel® Core™ i3, or an Intel® Pentium®4 Processor supporting HT Technology and an HT Technology enabled chipset, BIOS and operating system. Performance will vary depending on the specific hardware and software you use. See http://www.intel.com/info/hyperthreading for more information including details on which processors support HT Technology.

Contact your local Intel® sales office or your distributor to obtain the latest specifications and before placing your product order.

Copies of documents which have an ordering number and are referenced in this document, or other Intel® literature, may be obtained by calling 1-800-548-4725 or by visiting Intel's website at http://www.intel.com

Software and workloads used in performance tests may have been optimized for performance only on Intel® microprocessors. Performance tests, such as SYSmark* and MobileMark*, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products. For more information go to http://www.intel.com/performance

Copyright © 2011 Intel® Corporation.

* Other names and brands may be claimed as the property of others.

About this Document

This document is a guide measuring performance of Intel® processors on application software. The primary audience for this document includes individuals, publications, OEMs and technical analysts whose goal is to test or evaluate the performance benefits and features of Intel processors. If there are questions that are not answered here on software application performance evaluation of Intel processors, please contact your Intel representative.

Each software application test measures different aspects of processor and/or system performance. While no single numerical measurement can completely describe the performance of a complex device like a microprocessor or a personal computer, application tests can be useful tools for comparing different components and systems. The following results and procedures give a glimpse of the performance of certain software applications, however your own usage of each application may vary from what is shown here. The only totally accurate way to measure the performance of your system, is to test the actual software applications you use, in the way you use them, on your computer system. Test results published by Intel are measured on specific systems or components using specific hardware and software configurations, and any differences between those configurations (including software) and your configuration may make those results inapplicable to your component or system.

Software application tests are, at most, only one kind of information that you may use during the purchasing process. To get a true picture of the performance of a component or system you are considering purchasing, you must consult other sources of information (such as performance information on the exact system you are considering purchasing). If you have any questions about the performance of any Intel microprocessor, please view the detailed performance briefs and reports published by Intel.

Chapter 1
Ultrabook Resume (Long Duration) Scenario

1.0 Software Description

This workflow uses various applications including:

Windows Live Movie Maker 2011
Windows Live Photo Gallery 2011
Internet Explorer 9
Adobe Reader X

1.1 Test Workflow/Workload Description

This workload is designed to test the resume capabilities of Ultrabook by simulating a user using mainstream consumer applications who then closes the lid of their Ultrabook for use at a later time. The measured portion is the time it takes for the system to resume to a useable state once the user reopens the lid (note: depending on the test system, the user may have to press the power button)

1.2 Run Provisions

To test the different Ultrabook implementations of providing a responsive resume time, it is recommended to run this workload using the out-of-box OEM provided disk image with default settings.

To reduce test time, take note of system behavior after 12 hours of lid closed time (check settings pertaining to sleep/hibernate/Rapid Start in BIOS settings, power profile settings, and the system's user manual). Simulate this behavior to take effect as soon as possible after lid closure.

Chapter 2
Procedure for Evaluating Ultrabook Resume Time

Initial Setup:

1. Ensure you are NOT connected to the Internet at any time during setup or testing
2. Drag the "Workloads" folder to C:\

Set-up Instructions:

Install Windows Live Essentials 2011

1. Run wlsetup-all.exe
2. On the "What do you want to install?" screen, select "choose the programs you want to install"
3. Only select "Photo Gallery and Movie Maker" to be installed and click Install

Windows Live Photo Gallery 2011 Setup

1. Open Windows Live Photo Gallery
2. Click "Cancel" when asked to login to account
3. Click "Yes" when asked "Would you like to use Windows Live Photo Gallery to open these types of files?"
4. Click File -> Include folder and add the "Pics_1000" folder located in workloads folder and press OK
5. Click File -> Options and uncheck "Find People in your photos" and click OK
6. Close Windows Live Photo Gallery

Windows Live Movie Maker 2011 Setup

1. Open Windows Live Movie Maker
2. Click File -> Open Project
3. Open the "LiveMovieMaker_RoseGarden" project file located in the workloads folder
4. Wait for Movie Maker to finish preparing the project. You will see a progress bar located at the bottom left of the window.

5. Close Windows Live Movie Maker

Adobe Reader X

1. Run AdbeRdr1011_en_US.exe
2. Install using default options
3. Open Adobe Reader X and Accept the license agreement
4. Click Edit -> Preferences and select "Do not download or install updates automatically" in the Updater category.
5. Close Adobe Reader X

Internet Explorer 9

1. Install Windows6.1-KB2454826-v2-x64.msu
2. Run IE9-Windows7-x64-enu.exe and install using default options
3. Open Internet Explorer and click on the gear icon in the top right
4. Select Internet Options
5. "Use Blank" as the Home Page
6. Close Internet Explorer

Install Adobe Flash Player 11 for IE

1. Run install_flash_player_ax_32bit.exe and install_flash_player_ax_64bit.exe to install Adobe Flash Player 11 using default options

Script-assisted Run Instructions:

1. Copy the "ResumeScenarioSetup.exe" file to the Startup folder.

2. Restart the system.

3. Once the system loads into Windows, the script will automatically run. Wait until the message that the system is ready and follow the instructions.

4. Wait for 12 hours after lid closure.

   Note: To reduce test time, take note of system behavior after 12 hours of lid closed time (check settings pertaining to sleep/hibernate/Rapid Start in BIOS settings, power profile settings, and the system's user manual). Simulate this behavior to take effect as soon as possible after lid closure.

5. Reopen the lid and start the stopwatch.

   Note: Depending on the test system, the power button may need to be pressed to resume the system. If so, start the stopwatch at this time.

6. Stop the stopwatch as soon as the login screen appears. This is the resume time.

7. For multiple runs repeat steps 2-6.