

Software Evaluation Guide for Microsoft Office Excel 2010* and WinZip 15.5*



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This document is a guide measuring performance of the 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 the Pentium Processor. If there are questions that are not answered here on software application performance evaluation of the Pentium Processor, 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.

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Chapter 1

Processor Performance on Microsoft Excel 2010* and WinZip 15.5*

1.0 Software Description

Microsoft* Office Excel* 2010 is a powerful and widely used tool with which you can create and format spreadsheets, and analyze and share information to make more informed decisions. It allows you to import, organize and explore massive data sets within spreadsheets and then communicate your analysis with professional-looking charts. Excel* 2010 also provides tools to “see” important trends and find exceptions in your data. For more information go to <http://www.microsoft.com>

WinZip 15.5 allows you to zip and unzip files to conserve storage space, speed up e-mail transmission, and reduce download times. WinZip 15.5 also offers strong AES encryption for securing sensitive data, the ability to bundle files into convenient, compressed packages, and an automated data backup facility to prevent data loss. WinZip creates Zip, LHA, and Zipx files—and it opens Zip, Zipx, RAR, 7Z, BZ2, CAB, JAR, IMG, and most other compressed file types.

1.1 Test Workflow/Workload Description

The Black-Scholes model is used to calculate a theoretical call and put price using the five key determinants of an option’s price: stock price, strike price, volatility, time to expiration, and short-term (risk free) interest rate. The workload is execution of approximately 300,000 iterations of Monte Carlo simulation using the Black-Scholes basic option pricing formula in Microsoft* Excel* 2010. In addition, the workload uses Excel lookup functions to compare the put price from the model with the historical market price for 50,000 rows to understand the convergence. The input file is a 70.1 MB spreadsheet.

During the spreadsheet calculation the user decompresses an encrypted archive containing 40 10-megapixel photos. The photos are in jpeg format and the total size of all the photos is ~207 MB.

Chapter 2

Procedure for Evaluating Processor Performance

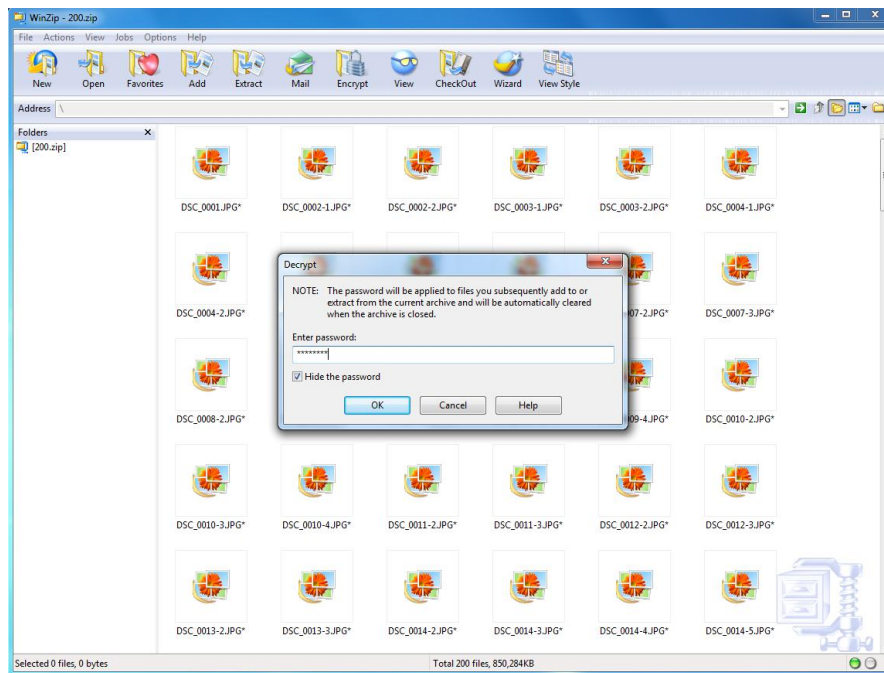
Setup Instructions:

1. Install Microsoft* Office 2010 Professional with default installation options.
2. Launch Excel* 2010 by clicking on the Start menu, then selecting All Programs->Microsoft Office->Microsoft Office Excel 2010.
3. Launch Microsoft Excel click cancel when <Microsoft office Activation Wizard display>
4. Select <Don't make change when "Welcome to Microsoft Office 2010" popup.
5. Click on the Office button on the top left corner of the Microsoft* Office Excel* 2010 window. (it will have a Microsoft* Office symbol on it)
6. Select Excel Options. This will bring up the Excel Options dialog window.
7. From the left menu, click on Trust Center.
8. On the right pane, click on the "Trust Center Settings..." button. This will bring up the Trust Center dialog window.
9. From the left menu click on Macro Settings.
10. On the right pane, select "Enable all macros (not recommended; potentially dangerous code can run)"
11. Click on OK to close the Trust Center dialog window.
12. Click on OK to close the Excel Options dialog window.
13. Close Microsoft* Office Excel* 2010
14. Install WinZip 15.5 with all defaults (select legacy mode and WinZip only) except DO NOT install Google toolbar.
15. Open application and select never display Quick tips and ok to close dialog box
16. Select unzip options at the drop down menu uncheck show unzipped files
17. Close WinZip and restart your system.

Run Instructions:

1. Launch Microsoft* Office Excel* 2010 from the Start menu.
2. Hit Ctrl-o to bring up the Open dialog window.
3. Locate the workload file (MonteCarloBlackScholesOptionPricing.xlsxm). Click on the Open button to open the file.
4. Double-click the WinZip icon on your desktop to launch WinZip.

5. Click on the Open button to open an archive.
6. Navigate to the directory where the archive is located and select the archive by pressing Enter.
7. Do not enter a password.
8. Select all the contents of the archive and click on Unzip.
9. Type in the password when prompted but do not press Enter or OK yet.



10. Go back to Microsoft Excel 2010* and press Ctrl-R to begin the recalculation scenario.
11. Immediately switch to WinZip and press OK to begin extracting the contents.
12. When the Microsoft Excel 2010* workload is complete, you will see a pop-up dialog that reports the execution time of the scenario. This is the **task time** it takes to complete this multi-tasking scenario.
13. Click Ok on the pop-up dialog and this will close Microsoft* Office Excel* 2010.
14. Delete the extracted contents before running again.