

Software Evaluation Guide for Microsoft Office Excel 2010*



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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.

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Chapter 1

Processor Performance on Microsoft Excel 2010*

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>

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 MB spreadsheet.

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 and click Cancel if the Microsoft Office Activation Wizard is displayed
4. Click on the Office button on the top left corner of the Microsoft* Office Excel* 2010 window.
5. Select Excel Options. This will bring up the Excel Options dialog window.
6. From the left menu, click on Trust Center.
7. On the right pane, click on the "Trust Center Settings..." button. This will bring up the Trust Center dialog window.
8. From the left menu click on Macro Settings.
9. On the right pane, select "Enable all macros (not recommended; potentially dangerous code can run)"
10. Click on OK to close the Trust Center dialog window.
11. Click on OK to close the Excel Options dialog window.
12. Close Microsoft* Office Excel* 2010

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.xlsm). Click on the Open button to open the file.
4. Go back to Microsoft Excel 2010* and press Ctrl-R to begin the recalculation scenario.
5. When the Microsoft Excel 2010* workload is complete, you will see a pop-up dialog that reports the execution time of the scenario.
6. Click Ok on the pop-up dialog and this will close Microsoft* Office Excel* 2010.
7. Repeat steps 1-6 for a total of 5 runs and take the median run as the result.