

Software Evaluation Guide for Adobe
Premiere Pro CS3* patch 3.1.1 with
Microsoft Flight Simulator X SP2*

“Creating video content while flying a long
game mission”



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

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About this Document

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 Processor. If there are questions that are not answered here on software application performance evaluation of the 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 for Adobe Premiere Pro CS3* w/patch 3.1.1 and Microsoft Flight Simulator X w/SP2*

1.0 Software Description

Adobe Premiere Pro CS3* software, available for both Windows* and Mac OS X*, makes every step of video production more efficient and now includes Adobe OnLocation CS3 (requires Windows and Bootcamp* for Mac) and Adobe Encore CS3 software. Premiere Pro CS3 allows you to save time from on-set capture using Adobe OnLocation through to output; expand your creative options via tight integration with After Effects CS3 Professional and Photoshop CS3 software; and reach the widest audience by delivering your content to DVD, Blu-ray Disc, the web, and mobile devices. Source: Adobe.com

Microsoft Flight Simulator X* is flight simulation software capable of rendering highly realistic flight conditions. Gamers using this software simulate flying real-life aircrafts from real locations throughout the world to gain achievements and experience.

1.1 Test Workload Description

The project "F1 Demo 3wayCC.prproj" contains two 30-second segments of HDV 1080p25 footage with a cross-dissolve transition applied across the entire 60s. The first 30s also has the effect "Three-Way Color Corrector" applied, independently adjusting the scene's shadows, highlights, and midtones. Additionally the 25fps input clip is converted to 29.97fps. The performance test measures the time to render a non-realtime preview of the entire 60s (1800 frames). This involves reading the two HDV source streams, applying the cross-dissolve, the Three-Way Color Corrector, and then encoding the result to an HDV file that is stored by Premiere Pro for later use when a preview of the rendered region is requested.

The saved game FSXMark07.FSSAVE is part of a downloadable benchmark created by Gary Dunne specifically for Microsoft Flight Simulator X. The saved game is an auto piloted CRJ700 flight that starts just after the aircraft has taken off from KPAE, climbed to 1500ft, and reached 250kts towards the Seattle city center, flies over KSEA then heads directly for Mount Rainier. The idea is to get a good mix of rural / suburban / cityscape, clouds, water, and AI aircraft / boats / cars. (Source: FSXMark07 Instructions.)

Chapter 2

Procedure for Evaluating Performance

The following is a procedure for evaluating performance while running Adobe Premiere Pro CS3 patch 3.1.1 and Microsoft Flight Simulator X w/SP2

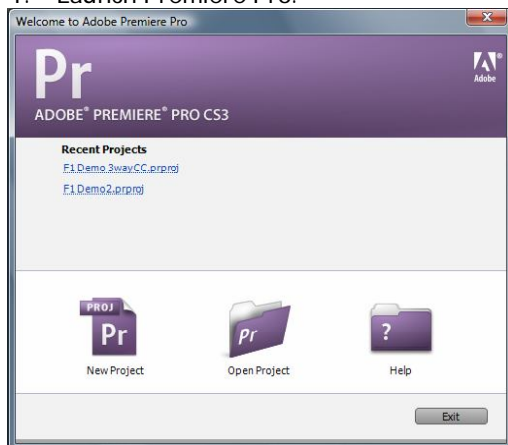
Setup Instructions:

1. Unzip PremiereProCS3_Release_Inst.zip to c:\
2. Copy the folder PremiereCS3_WL\PremiereProCS3_WL to c:\ (giving c:\PremiereProCS3_WL)
3. Install Premiere CS3 3.0 from the DVD.
4. Run Premiere Pro
5. Open "c:\PremiereProCS3_WL\Intel_BMW_F1\F1 Demo 3wayCC.prproj".
 - a. If it asks for a file location, find the named file in "PremiereProCS3_WL\video\hdv1080p25" and click select.
 - b. Wait for the indexing and then the conforming to complete.
 - c. Press space (or play button), it may render some files, then begin playing.
 - d. Press space again to stop
 - e. Press the Home key to go to the beginning of the timeline
 - f. Press "Ctrl+S" to save the project.
 - g. Exit Premiere Pro
6. Edit "%homedrive%%homepath%\Application Data\Adobe\Premiere Pro\3.0\Trace Database.txt". Change the "5" to "10" in the line beginning with "PlayerStandard.DesktopWillDisplayNewFrame".
7. Save Trace Database.txt.
8. Install files in the folder "ToInstall". The ToInstall folder is located in the c:\PremiereProCS3_Release_Inst folder
 - a. ActivePerl* (use default options to update path)
 - b. Autolt*
 - c. Copy to HomePath: pprotrace3.pl
 - d. Copy to Desktop
 - i. DebugView*
 - e. Install QuickTime*
9. Double-click the DbgView application to install it.
 - a. Disable Capture-Capture Kernel in the Capture menu so there is no check next to it.
 - b. Disable Options->Auto Scroll from the Options menu so there is no check next to it.
10. Create a shortcut on the desktop to the PremiereProCS3_Benchmark.exe script. It is located inside the PremiereProCS3_Release_Inst.zip\ToInstall folder.
11. Install the 3.1.1 patch for Premiere Pro from the Adobe website.
12. In the Adobe->Adobe Premiere Pro CS3->Plug-ins->en_US folder, replace the file AEFilteColorThreeWay-org.aex and replace the file ImageRenderer.dll in Adobe-Adobe Premiere Pro CS3 with the updated file versions.

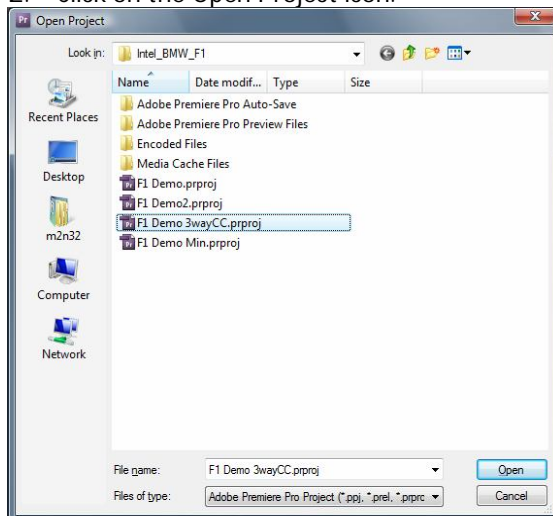
13. Purchase and install Microsoft Flight Simulator X with default installation options.
14. Install Flight Simulator X Service Pack 1.
15. Install Flight Simulator X Service Pack 2.
16. Open Flight Simulator and from the settings menu change all Display Settings to Medium High
17. Click Customize and under the Graphics tab ensure the Target Frame Rate is set to Unlimited and the full screen resolution is set to 1280x1024x32. Click Ok to save, and exit the game.
18. Unzip the fsxmark07.zip file to a local folder and create a shortcut to FSXMark07.FSSAVE on your desktop.
19. Download and install FRAPS* with default installation instructions.

Run Instructions:

1. Launch Premiere Pro.

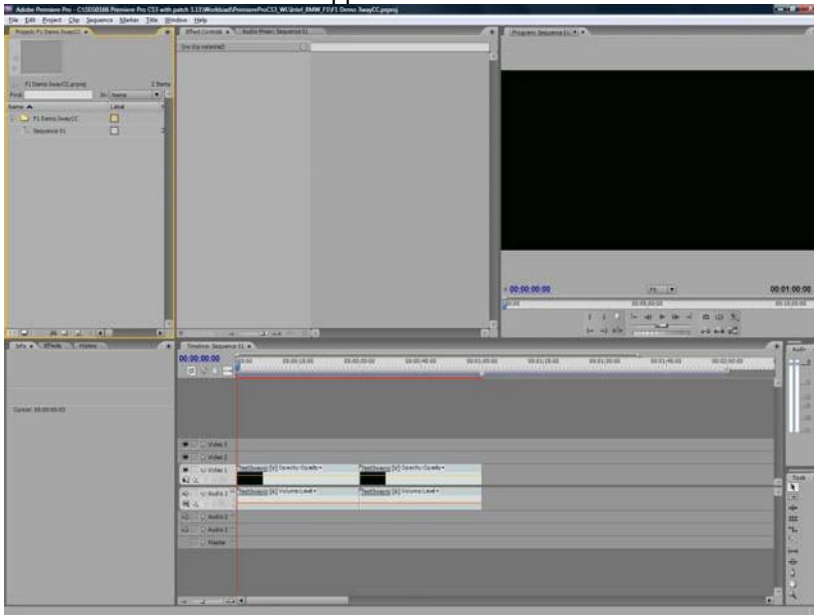


2. Click on the Open Project icon.

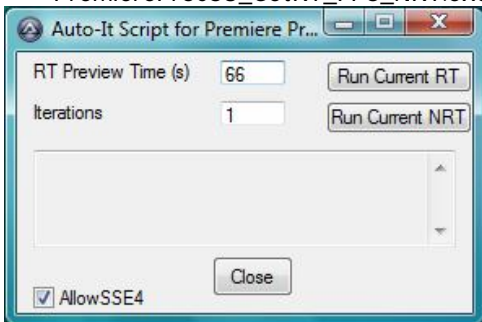


3. Navigate to the F1 Demo 3wayCC.prproj project file. Click the Open button to open the project.

The window below will appear.



4. Minimize the Premiere Pro application.
5. Double-click the Auto IT script shortcut on the desktop. The script name is PremiereProCS3_GetRT_FPS_NRT.exe. The dialog below will appear.



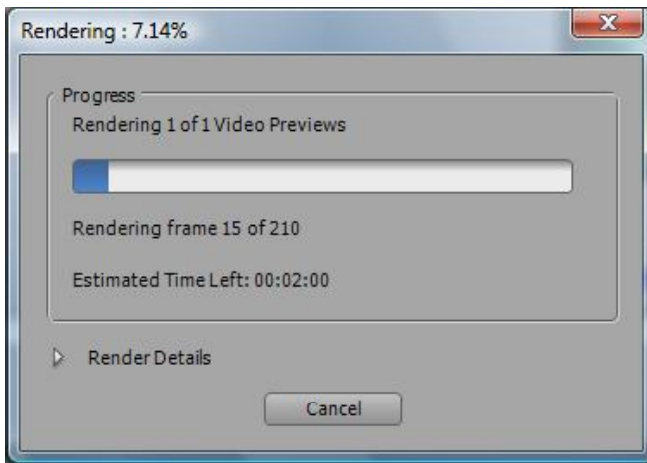
6. Launch FRAPS from the icon on your desktop. Under the FPS tab configure FRAPS to start capturing 120 seconds of MinMaxAvg FPS data when the P key is pressed. The window below will be displayed after settings have been inputted.



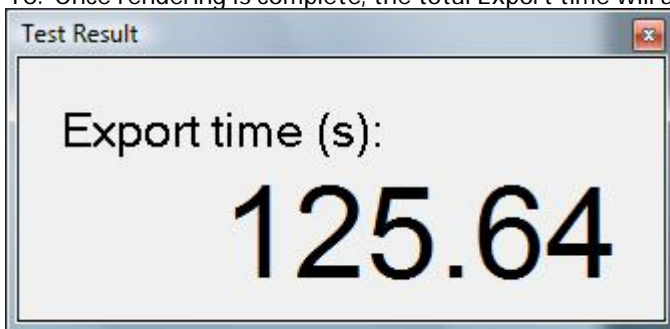
- Open FSXMark07.FSSAVE from the shortcut on your desktop. Once the saved game is loaded, if game starts in full-screen mode, enter windowed mode by pressing Alt+Enter. The window below will be displayed.



- Toggle windows back to the AutoIt script and click on the Run Current NRT button. The Allow SSE4 checkbox should be selected. The Rendering progress dialog below will appear.

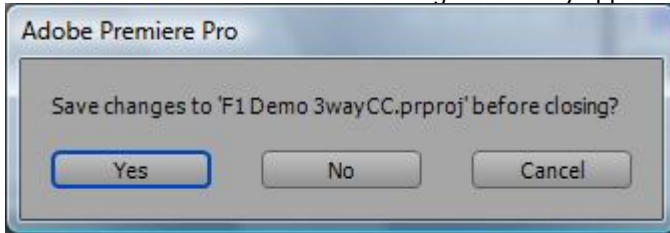


- Once you see the box above immediately toggle screens back to Flight Simulator and press Alt+Enter to enter full-screen mode. Once the saved level is visible press P to start the 120 second capture and saved game-play.
- Once rendering is complete, the total Export time will appear as shown below.



11. This is the time needed for the system to complete the rendering.

12. Close Premiere Pro CS3. The dialog below may appear.



13. Click the No button. Do not save changes to the project.

14. Exit Flight Simulator.

15. Log the export time from Premiere, the frame rate for Flight Simulator and the total frames rendered for Flight Simulator. The frames/sec number for the first 120 seconds of the benchmark will be recorded in a log file at C:\Fraps\FRAPSLOG.txt

16. Repeat steps 1-14 four more times. Take the median of the five measured data points for each application.