

Alibre Design 12.0 versus Alibre Design 11.2

Performance Testing Results

3D View Interaction and DWG/DXF Workflows

Lista Studio srl
www.lista.it
Borgo Belvigo 33
36016 Thiene Vi
tel. 0445,382056

v12.0 versus v11.2

What does the data show?

The data shows the frames per second (FPS) of the model display window during view interaction, such as rotating, panning, and zooming. Higher FPS means smoother rotating, panning, and zooming. Each graph shows the performance as measured between several different hardware and operating system combinations between v11.2 and v12.0.

What systems and video cards were tested?

Each test assembly (4) was tested on Windows Vista and Windows XP using 7 different video cards on two processors.

Video Cards	Processors
Nvidia 260	Intel Core 2 Duo E6850
Nvidia 8800GT	AMD Athlon X2 BE-2300
Nvidia 7300 LE	Operating Systems
ATI 3850	Windows XP
ATI 2400	Windows Vista
Intel X3100	
ATI 4830	

Overview of the results -

Alibre Design 12.0 substantially outperforms v11.2 in terms of view interaction performance. The average v12 improvement in the Shaded display mode was a 1.9x improvement in FPS over v11.2. The average improvement of Shaded and Visible Edges mode was a 13x improvement in FPS over v11.2.

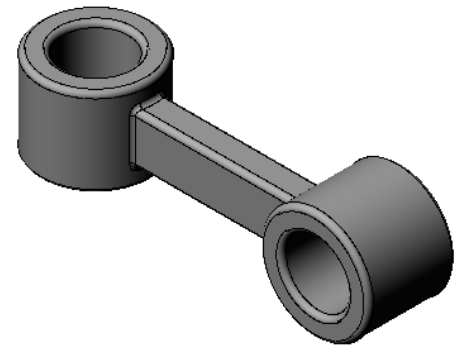
There is now essentially no difference between Shaded Mode and Shaded and Visible Edges Mode. As such, the default is now Shaded and Visible Edges for v12, since this mode provides greater clarity and is more aesthetically appealing.

Those working with large assemblies that experience view performance lag in v11.2 will substantially benefit from moving to Alibre Design 12.0.

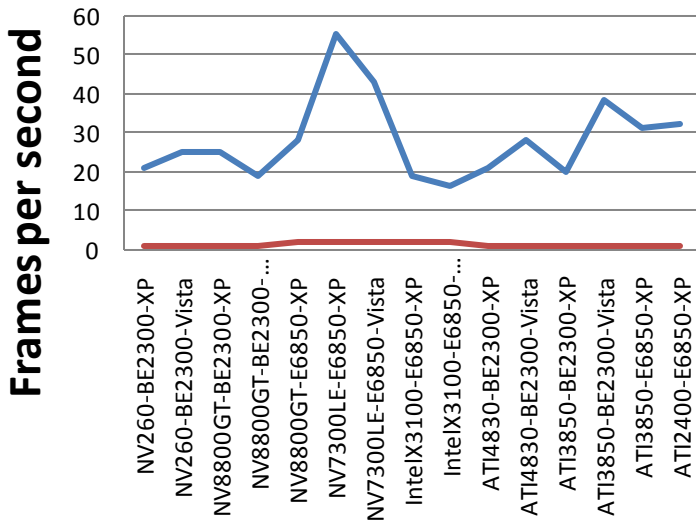
Shaded and Visible Edges Display Mode

Large Assembly Test Results:

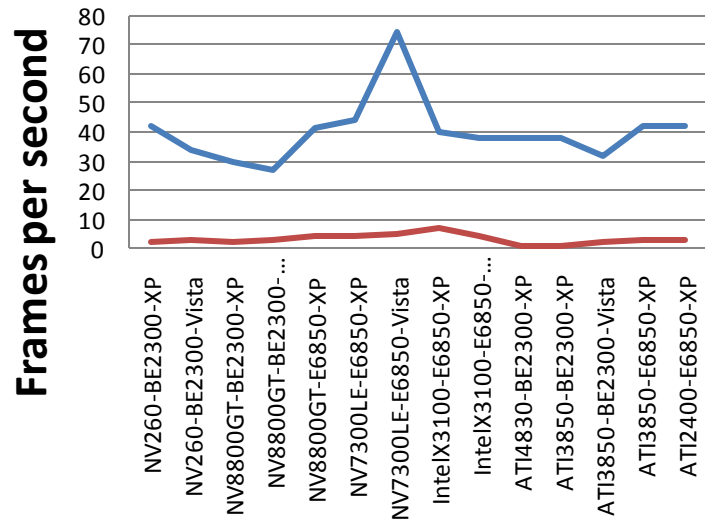
v12 is, on average, **13x faster** than v11.2 with view interaction when Shaded and Visible Edges is the display mode



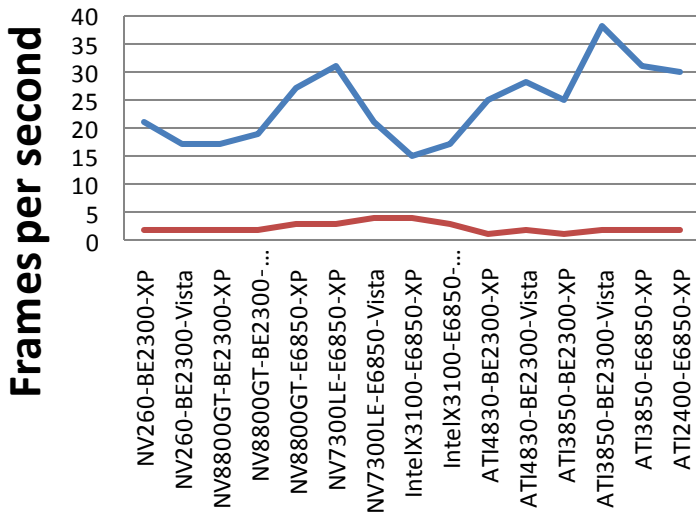
Test Assembly 1



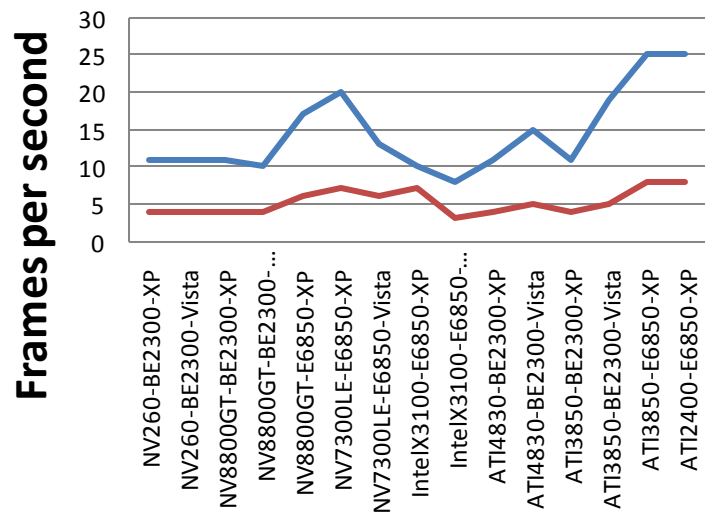
Test Assembly 2



Test Assembly 3



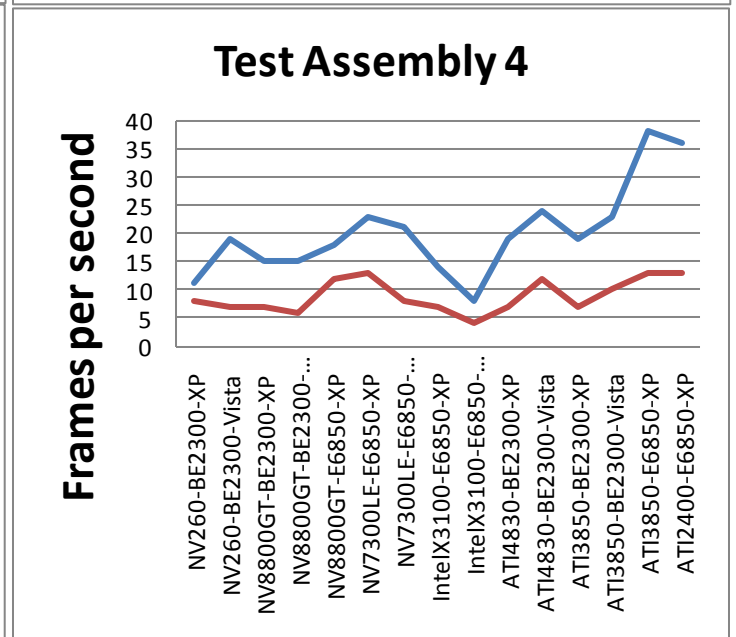
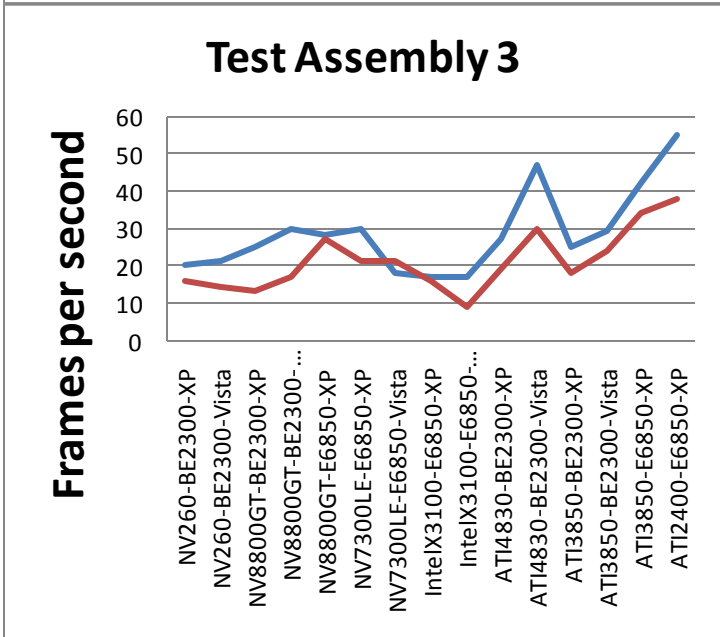
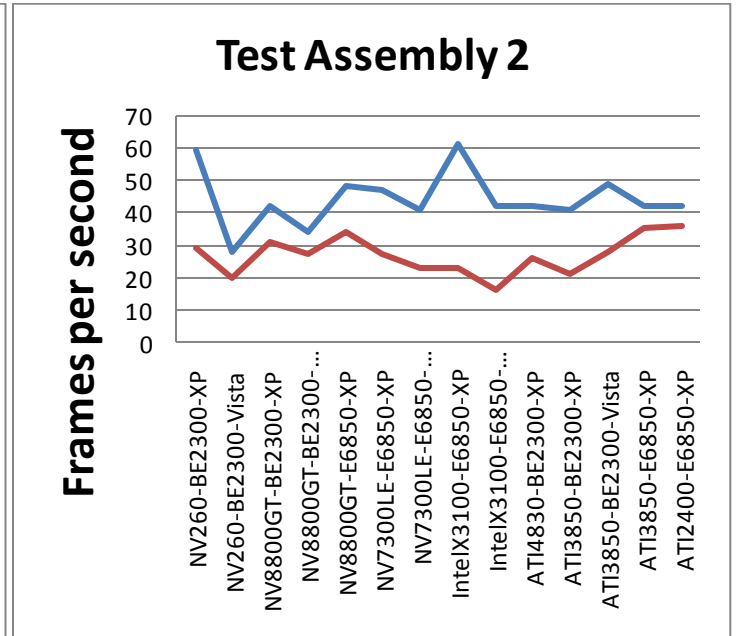
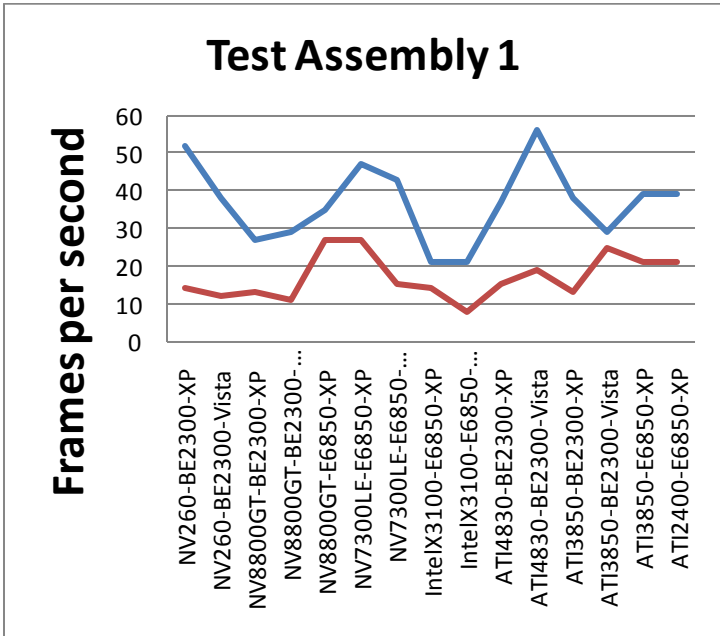
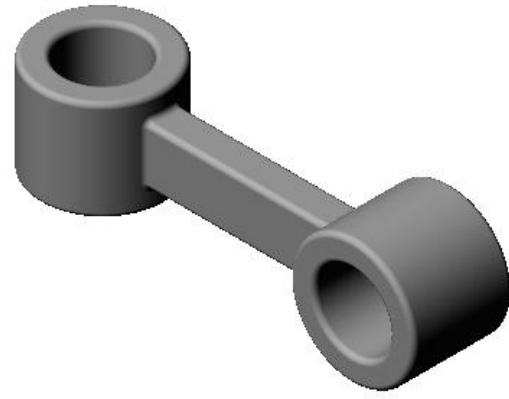
Test Assembly 4



Shaded Display Mode

Large Assembly Test Results:

v12 is, on average, **1.92x faster** than v11.2 with view interaction when Shaded is the display mode



Imported DWG/DXF Workflow Performance

v12.0 versus v11.2

What does the data show?

The data shows the time it takes to complete each step in the workflow. 4 steps are taken into account:

1. Importing the DWG/DXF
2. "Activate Sketch on Sheet"
3. Create 7 dimensions
4. De-activate "Activate Sketch on Sheet"

What types of DWG/DXF files were tested?

Each DWG or DXF was a very complex file designed to stress the software. Typically they contained substantially more data than would be standard practice to include on a single sheet of a drawing. Each drawing was of an assembly, contained 4-6 views, and each view had:

- Centerlines
- Centermarks
- Hidden Lines
- Tangent Edges
- Cosmetic Threads
- Hole Callouts
- External Thread Callouts
- Dimensions

Overview of the results -

In Alibre Design 11.2, complex DWG/DXF files would take a substantial amount of time during the "Activate Sketch on Sheet" function. Sometimes this was upwards of 5-6 minutes. For the 4 drawings tested, this function is an average of 30x faster in Alibre Design 12 versus 11.2. This substantially decreases the amount of time for this workflow to be completed.

Raw Data for Workflow testing over 4 DWG/DXF files between Alibre Design 11.2 and 12.0

Workflow Step		Test Drawing 1	Test Drawing 2	Test Drawing 3	Test Drawing 4
All Values in Seconds					
Import the drawing	v11.2	7	4	8	33
	v12	5	5	5	35
Activate Sketch on Sheet	v11.2	64	409	338	420
	v12	5	3	4	28
Create 7 dimensions	v11.2	63	32	27	50
	v12	29	16	13	30
Exit Sketch Mode	v11.2	21	9	7	9
	v12	3	2	2	8

Overall Results

Total time taken to test all 4 drawing workflows on v11.2: 1501 seconds
Total time taken to test all 4 drawing workflows on v12.0: 193 seconds (7.7x overall improvement)
Total time taken to "Activate Sketch on Sheet" for all 4 drawings in v11.2: 1231 seconds
Total time taken to "Activate Sketch on Sheet" for all 4 drawings in v12.0: 40 seconds (30x faster)