

Altair HyperWorks 2018

Hardware Recommendations and Certifications

Version: 1.0

The following table lists the recommended CAE/CAD graphic boards to use with HyperWorks** applications. The most recent vendor/manufacturer drivers should be used and all driver support for these cards should be addressed to the appropriate manufacturer of the graphic board.

NOTE: We no longer will support AMD graphics cards on Linux x86_64 operating systems in HyperWorks 2018 and higher products.

AMD Graphics Card (GPU) Table

Manufacturer	Adaptor Type	Driver Version (minimum or higher)
AMD (FirePro 3D series)	<p>Ultra High-End RadeonPro WX 9100 FirePro W9100 FirePro W8100</p> <p>High-End RadeonPro WX 7100 FirePro W7100</p> <p>Mid-Range RadeonPro WX 5100 FirePro W5100</p> <p>Entry Level RadeonPro WX 4100 RadeonPro WX 3100 RadeonPro WX 2100 FirePro W4100 FirePro W2100</p>	<p>Windows 7/10 (64-bit): 17.Q3</p> <p>Linux (64-bit): NOT SUPPORTED</p>

NVIDIA Graphics Cards (GPU) Table

Manufacturer	Adaptor Type	Driver Version (minimum or higher)
<p style="text-align: center;">NVIDIA (Quadro series)</p>	<p>Ultra High-End Quadro GP100 Quadro P6000 Quadro M6000 Quadro K6000 Quadro 6000</p> <p>High-End Quadro P5000 Quadro M5000 Quadro K5200 Quadro K5000 Quadro 5000 Quadro P4000 Quadro M4000 Quadro K4200 Quadro K4000 Quadro 4000</p> <p>Mid-Range Quadro P2000 Quadro M2000 Quadro K2200 Quadro K2000 Quadro K2000D Quadro 2000</p> <p>Entry Level Quadro P1000 Quadro K1200 Quadro K620 Quadro K600 Quadro 600 Quadro K420 Quadro 410</p>	<p>Windows 7/10 (64-bit) ODE Graphics Driver: 385.41</p> <p>Linux (64-bit) Long Lived Driver: 384.69</p>

Recommended Laptop/Notebook Graphic Board List

Manufacturer	Adaptor Type	Driver Version (minimum or higher)
<p align="center">AMD (FirePro and RadeonPro Mobility series)</p>	<p>WX 7100M WX 4150M W7170M W5170M W5130M W4170M M6100 M5100 M4100</p>	<p align="center">Windows 7/10 (64-bit): 17.Q3</p> <p>NOTE: Please check with manufacturer or laptop vendor OEM for official driver support and for most recent driver updates.</p>
<p align="center">NVIDIA (Quadro mobility series)</p>	<p>P5000M P4000M P3000M</p> <p>M5000M M4000M M3000M M2200M M2000M M1000M M620M M520M M600M M500M</p> <p>K5100M K4100M K3100M K2200M K2100M K1100M K620M K610M K510M</p>	<p align="center">Windows 7/10 (64-bit): 385.41</p> <p>NOTE: Please check with manufacturer or laptop vendor OEM for official driver support and for most recent driver updates</p> <p>NVIDIA does not support Windows Vista drivers and laptop OEM drivers should be used</p>

**In order to provide advanced graphical capabilities and features in the HyperWorks products, there is a minimum requirement of OpenGL 3.2. Not meeting this hardware and driver requirement may cause problems with newer HyperWorks versions and features. Performance of HyperWorks may be degraded with compositing desktop effects enabled under Linux environments.

Recommended Workstation Desktop and Laptop/Notebook Hardware List

Manufacturer	Desktop			Laptop/Notebook		
DELL (Precision)	Model	GPU	GPU	Model	GPU	GPU
		AMD (FirePro)	NVIDIA (Quadro)		AMD (FirePro)	NVIDIA (Quadro)
	T7610 T3610	W7000 W5000 V4900 V3900	K6000 K5000 K4000 K2000 K600	M6700	M6000	K5000M K4000M
	5810	W8100	M6000 M5000 M4000 M2000	M6800	M6100	K3100M
	7810			M4700	M4000	K2000M K1000M
	7910	W9100 W8100	M6000 M5000 M4000	M4800	M5100	K1100M
				5510	N/A	M1000M
				5520 AIO	RadeonPro WX 7100	N/A
				5520	N/A	M1200M
				5720	RadeonPro WX 7100	
				7510	W5170M	M1000M M2000M
				7520	RadeonPro WX 7100	P5000M P3000M
	7710	W7170M W5170M	M5000M M4000M M3000M			
	7720			7720	RadeonPro WX 7100	P5000M P4000M P3000M M1200M

Manufacturer	Desktop			Laptop/Notebook		
Lenovo (ThinkStation/ ThinkPad)	Model	GPU	GPU	Model	GPU	GPU
		AMD (FirePro)	NVIDIA (Quadro)		AMD (FirePro)	NVIDIA (Quadro)
	P300	N/A	K4000 K2000 K600	W530	N/A	K2000M K1000M
				W540	N/A	K2100M K1100M
	P500	N/A	Up to K6000	W541	N/A	K2100M K1100M
	P700	N/A	Up to K5200			
	P900	N/A	Up to K6000			
	P320	N/A	P400 P600 P1000 P2000 P4000	W550	N/A	K620M
	P320 SFF	N/A	P400 P600 P1000	P40 Yoga	N/A	M500M
	P410/P510/P710/P910	N/A	K420 K620 K1200 M2000 M4000 M5000 M6000 P5000 P6000	P50s	N/A	M500M
				P51s	N/A	M520M
				P50	N/A	M2000M M1000M
				P51	N/A	M1200M M2200M
P70				N/A	M5000M M4000M M3000M M600M	
P71				N/A	M620M P3000M P4000M P5000M	

NOTE:

For *NVIDIA GPU* based laptops/notebooks the *Optimus* power saving option in the BIOS should be disabled and the NVIDIA drivers properly installed for optimal performance in HyperWorks.

For *AMD GPU* based laptops/notebooks the *Enduro/Switchable Graphics* power saving option should be disabled and the AMD drivers properly installed for optimal performance in HyperWorks.

Optimus (Intel/NVIDIA) enabled drivers may create performance issues with notebooks/laptops compared to a dedicated non-shared GPU driver. Disabling the Optimus feature in BIOS, if available, will help give the best overall graphics performance.

Disable nView Window manager under NVIDIA drivers if you experience random crashes and/or issues.

All power saving modes, settings and governors for CPU frequencies and GPU performance should be set to maximum settings in order to get the optimal performance out of HyperWorks products. This includes smooth graphics and high frame rates (FPS) on Windows and Linux platforms.

Additional Information on Driver Installations:

NVIDIA Driver Update recommendation is to use the **“Custom”** install option and select a **“Perform clean installation”** option to validate that there are no conflicts in DLL/drivers. Below you will find the screenshot of the option mentioned. The same should be done with AMD hardware and drivers as well using AMD’s custom uninstall tools.

