

## Graphics Boards for *hyperCAD*<sup>®</sup>-S

System requirements: graphics engine requires an OpenGL accelerated graphics display driver. Latest generation of GPU with OpenGL 3.3 or higher is recommended.

Windows don't supply OpenGL accelerated drivers out of the box. End users will need to install drivers from OEM or manufacturers in order to access native hardware-accelerated OpenGL. These drivers can be found on the web sites of most hardware manufacturers.

The following table gives the list of graphic cards and display driver suggested. **Please note:** This does not mean that *hyperCAD*<sup>®</sup>-S can only run on these specific systems. These are only the systems that are currently running automated test or are currently used in daily work. *hyperCAD*<sup>®</sup>-S should run on any graphics system that supports a complete implementation of OpenGL.

Reference driver can be installed on notebook GPUs. However, please note that your notebook original equipment manufacturer (OEM) provides drivers for your specific notebook on their website. Please check with your notebook OEM about recommended software updates for your notebook.

On system with two graphic boards select the accelerated GPU (AMD/NVIDIA) instead of the integrated one, from the relative display control panel.

With NVIDIA Quadro board we recommend to use the "Workstation app - dynamic streaming" or the "3D App - Visual Simulation" profiles from the NVIDIA control panel.

On Windows 7 enable the desktop composition and the Aero Peek. Don't use the Basic themes like Windows 7 Basic or Windows Classic which prevent to enable the desktop composition. First select an Aero Theme from Control Panel->Personalization. Then enable the desktop composition from: Control Panel->System->Advanced system settings->Advanced->Performance Settings->Visual Effects->Enable desktop composition.

Windows 10 feature update may change the display driver or video card settings without any notification. We recommend checking after the Windows update. The *hyperCAD*-S<version>\systemchecktool.exe application may help you to identify problems.

Brand	Year	Series	Product	Windows 7 x64	Windows 8.1 x64 <a href="#">NVIDIA Driver downloads</a>	Windows 10 x64
Quadro workstation	2008	FX-8	FX 1800	340.84 341.96	340.84 341.96	341.96
			FX 3800			
			FX 4800			
			FX 5800			
	2009-2010	Fermi	600	340.84 376.84	340.84 376.84	341.96 376.84
			2000			
			4000			
			5000			
	2013	Kepler	6000	376.84 385.69 391.03	376.84 385.69 391.03	376.84 385.69 391.03
			K600			
			K2000			
			K4000			
	2014	Kepler	K5000	376.84 385.69 391.03	376.84 385.69 391.03	376.84 385.69 391.03
			K6000			
			K620			
			K1200			
	2015-2016	Maxwell	K2200	376.84 385.69 391.03	376.84 385.69 391.03	376.84 385.69 391.03
			K4200			
			K5200			
			M2000			
2017	Pascal	M4000	376.84 385.69 391.03	376.84 385.69 391.03	376.84 385.69 391.03	
		M5000				
		M6000				
		P400				
		P600				
		P1000				
		P2000				
		P4000				
		P5000				
		P6000				
GP100						
Quadro notebook	2008	FX-8	FX 880M	340.84 341.96	340.84 341.96	341.96
			FX 1800M			
			FX 2800M			
			FX 3800M			
	2009-2010	Fermi	1000M	340.84 377.55	340.84 377.55	377.55
			2000M			
	2009-2010	Fermi	3000M	340.84 376.84 391.03	340.84 376.84 391.03	341.96 376.84 391.03
			4000M			
			5000M			
			K1000M			
	2013	Kepler	K2000M	376.84 385.69 391.03	376.84 385.69 391.03	376.84 385.69 391.03
			K3000M			
			K4000M			
			K5000M			
			K1100M			
	2013-2014	Kepler	K2100M	376.84 385.69 391.03	376.84 385.69 391.03	376.84 385.69 391.03
			K3100M			
			K4100M			
			K5100M			
			K2200M			
2015-2016	Maxwell	M500M	376.84 385.69 391.03	376.84 385.69 391.03	376.84 385.69 391.03	
		M600M				
		M1000M				
		M2000M				
		M3000M				
2017	Maxwell	M4000M	376.84 385.90 391.03	376.84 385.90 391.03	376.84 385.90 391.03	
		M5000M				
		M620				
		M1200				
2017	Pascal	M2200	376.84 385.69 391.03	376.84 385.69 391.03	376.84 385.69 391.03	
		P3000				
		P4000				
		P5000				
		P5000				

NVIDIA

GeForce desktop / notebook	2009	Fermi	GTX 590, 580, 570, 560	372.70 385.69	372.70 385.69	372.70 385.69
	2012	Kepler	GTX 690, 680, 660, 650	372.70 385.69 398.36	372.70 385.69 398.36	372.70 385.69 398.36
	2014	Kepler	GTX 750	372.70 385.69 398.36	372.70 385.69 398.36	372.70 385.69 398.36
			GTX 760			
			GTX 770			
			GTX 780			
			GTX TITAN			
	2015	Maxwell	GTX 950	372.70 385.69 398.36	372.70 385.69 398.36	372.70 385.69 398.36
			GTX 960			
			GTX 970			
			GTX 980			
			GTX TITAN X			
	2016-2017	Pascal X	GTX 1050	372.70 385.69 398.36	372.70 385.69 398.36	372.70 385.69 398.36
			GTX 1060			
			GTX 1070			
			GTX 1080			
TITAN XP						

Brand	Year	Series	Product	Windows 7 x64	Windows 8.1 x64 <a href="#">AMD Driver downloads</a>	Windows 10 x64
FirePro workstation	2011	V	V3800	13.352.1019 15.201.2401.1009	13.352.1019 15.201.2401.1009	15.201.2401.1010
			V4800			
			V5800			
			V7800			
			V8800			
	2013	V	V3900	13.352.1019 15.201.2401.1009	13.352.1019 15.201.2401.1009	15.201.2401.1010
			V4900			
			V5900			
	2014	W	W5000	13.352.1019 15.301.2601 17Q3.1 Enterprise 22.19.161.2561 18Q1 Enterprise 23.20.15018.16 18Q2.1 Enterprise 24.20.11001.15002	13.352.1019 15.301.2601 17Q3.1 Enterprise 22.19.161.2561 18Q1 Enterprise 23.20.15018.16 18Q2.1 Enterprise 24.20.11001.15002	15.301.2601 17Q3.1 Enterprise 22.19.161.2561 18Q1 Enterprise 23.20.15018.16 18Q2.1 Enterprise 24.20.11001.15002
			W7000			
			W8000			
			W9000			
			W2100			
	2015	W	W4100	13.352.1019 15.301.2601 17Q3.1 Enterprise 22.19.161.2561 18Q1 Enterprise 23.20.15018.16 18Q2.1 Enterprise 24.20.11001.15002	13.352.1019 15.301.2601 17Q3.1 Enterprise 22.19.161.2561 18Q1 Enterprise 23.20.15018.16 18Q2.1 Enterprise 24.20.11001.15002	15.301.2601 17Q3.1 Enterprise 22.19.161.2561 18Q1 Enterprise 23.20.15018.16 18Q2.1 Enterprise 24.20.11001.15002
			W5100			
			W7100			
W8100						
2016	W	W9100	15.301.2601 17Q3.1 Enterprise 22.19.161.2561 18Q1 Enterprise 23.20.15018.16 18Q2.1 Enterprise 24.20.11001.15002	15.301.2601 17Q3.1 Enterprise 22.19.161.2561 18Q1 Enterprise 23.20.15018.16 18Q2.1 Enterprise 24.20.11001.15002	15.301.2601 17Q3.1 Enterprise 22.19.161.2561 18Q1 Enterprise 23.20.15018.16 18Q2.1 Enterprise 24.20.11001.15002	
		W4300				
Radeon Pro workstation	2017	WX	WX 2100 WX 3100 WX 4100 WX 5100 WX 7100	17Q3.1 Enterprise 22.19.161.2561 18Q1 Enterprise 23.20.15018.16 18Q2.1 Enterprise 24.20.11001.15002	n.a.	17Q3.1 Enterprise 22.19.161.2561 18Q1 Enterprise 23.20.15018.16 18Q2.1 Enterprise 24.20.11001.15002
Radeon desktop		HD 6000	HD 6000 series	Catalyst 13.12 Driver 13.251 Crimson 16.2.1 Driver 15.301.1901	Catalyst 13.12 Driver 13.251 Crimson 16.2.1 Driver 15.301.1901	Crimson 16.2.1 Driver 15.301.1901
	2012	HD 7000	7300	Catalyst 13.12 Driver 13.251 Crimson 16.2.1 Driver 15.301.1901 Adrenalin 18.5.1 Driver 24.20.11016.4	Catalyst 13.12 Driver 13.251 Crimson 16.2.1 Driver 15.301.1901 Adrenalin 18.5.1 Driver 24.20.11016.4	Crimson 16.2.1 Driver 15.301.1901 Adrenalin 18.5.1 Driver 24.20.11016.4
			7400			
			7500			
			7600			
			7700			
			7800			
	2013	HD 8000	7900	Catalyst 13.12 Driver 13.251 Crimson 16.2.1 Driver 15.301.1901 Adrenalin 18.5.1 Driver 24.20.11016.4	Catalyst 13.12 Driver 13.251 Crimson 16.2.1 Driver 15.301.1901 Adrenalin 18.5.1 Driver 24.20.11016.4	Crimson 16.2.1 Driver 15.301.1901 Adrenalin 18.5.1 Driver 24.20.11016.4
			8300			
			8400			
			8500			
			8600			
			8700			
	2013	R5	8800	Crimson 16.2.1 Driver 15.301.1901 Adrenalin 18.5.1 Driver 24.20.11016.4	Crimson 16.2.1 Driver 15.301.1901 Adrenalin 18.5.1 Driver 24.20.11016.4	Crimson 16.2.1 Driver 15.301.1901 Adrenalin 18.5.1 Driver 24.20.11016.4
			8900			
			220			
230						
240						
2014	R7	340	Crimson 16.2.1 Driver 15.301.1901 Adrenalin 18.5.1 Driver 24.20.11016.4	Crimson 16.2.1 Driver 15.301.1901 Adrenalin 18.5.1 Driver 24.20.11016.4	Crimson 16.2.1 Driver 15.301.1901 Adrenalin 18.5.1 Driver 24.20.11016.4	
		240				
		250				
		260				
		350				
2015	R9	360	Crimson 16.2.1 Driver 15.301.1901 Adrenalin 18.5.1 Driver 24.20.11016.4	Crimson 16.2.1 Driver 15.301.1901 Adrenalin 18.5.1 Driver 24.20.11016.4	Crimson 16.2.1 Driver 15.301.1901 Adrenalin 18.5.1 Driver 24.20.11016.4	
		270				
		280				
		290				
		380				
2016	RX 400	390	Crimson 16.2.1 Driver 15.301.1901 Adrenalin 18.5.1 Driver 24.20.11016.4	Crimson 16.2.1 Driver 15.301.1901 Adrenalin 18.5.1 Driver 24.20.11016.4	Crimson 16.2.1 Driver 15.301.1901 Adrenalin 18.5.1 Driver 24.20.11016.4	
		460				
		470				
2017	RX 500	480	Adrenalin 18.5.1 Driver 24.20.11016.4	n.a.	Adrenalin 18.5.1 Driver 24.20.11016.4	
		560				
		570				
		580				