

AUTODESK[®] MUDBOX[™] 2010

GRAPHICS HARDWARE QUALIFICATION

APPLE® MACINTOSH® PLATFORM

Last updated: December 8th, 2009.

Readme First

The information contained in the <u>Readme First</u> document applies to all hardware qualification executed on the Autodesk Mudbox 2010 software product release and should be acknowledged by all users prior consulting the qualification charts.

What's New

Qualification of Mudbox on Snow Leopard is started, first result is available.

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Tested Mac OS® Versions

- 1. Workstations and graphics cards have been tested on MAC OS X v.10.5.8 unless mentioned otherwise with a small annotation.
- 2. To verify which version of the Mac OS X version is installed, select "About This Mac" in the Apple menu. The general OS Version number is just below the logo; e.g., Version 10.5.8. To find the build number for that Version, click the version text. The Version number changes to display the Build number; e.g., Build 9L30.
- 3. Note: Occasionally, Apple releases slightly different versions that carry the same Version number (but different build number). These slightly different versions may behave differently. It may only be possible to identify the OS version by the build number.

Workstation and Mobile Workstations

- 1. Autodesk Mudbox 2010 is qualified on any of the systems identified in the following Hardware System Qualification section using the version of MAC OS X v.10.5.8. Do not assume that newer versions of Mac OS X will be suitable for use with the Mudbox 2010 software version.
- 2. You may need to refer to the <u>Apple Support site</u> to identify your system.
- 3. If you intend to run dual monitors, see the System Dependent & Miscellaneous Issues section Caveat / Limitation 1.
- 4. Any Mac with built in Intel® GMA 950 or GMA x3100 Graphics is not tested and will not be supported.

Important Notes

- 1. Certain combinations of lights, shadows, reflectivity & viewport filters may not work properly on ATI hardware. If the model in your viewport shows up white, you've hit one of these limitations. To restore the model, reduce the number of lights/shadows, or turn off reflectivity or viewport filters until the object no longer renders white.
- 2. ATI can only display one bump, reflectivity or shadow effect on a single material at one time. These limitations exist because Mudbox is limited by the number of shader instructions that ATI can support when using Cg. Enabling these features increases the number of shader instructions used and causes the shader to fail.
- 3. ATI is limited to one shadow and do not have any shading
- 4. Graphics cards with at least 512 MB memory and that support 32bit texture channels will show better performance during texture painting workflows.
- 5. Cards with low amounts of memory (256 MB) may exhibit a lag upon rotating the viewport when Tonemapper and Depth of Field are enabled

Hardware System Qualification

The following table lists the tested hardware system for the Mudbox 2010 software product release.

Table Legend

- ✓ Qualified.
- Qualified with caveats. Refer to the Hardware System Caveats & Limitations.
- Qualification planned or in progress. Results coming shortly.
- Supported although not officially qualified in our lab.
- Hardware component falls below minimum system requirements to run the Autodesk product.
- Qualification failed due to serious problems.
- No qualification planned or not applicable.
- Not yet tested.

Intel®-based Apple® Macintosh® Hardware System Qualification for Autodesk Mudbox 2010						
	Apple Macintosh Hardware Syster	n				
Model	Model Specification Qualification					
Mac [®] Pro						
	Intel [®] Xeon [®] Core™ 2 Quad @ 2.26Ghz	\checkmark				
	Intel Xeon Core 2 Quad @ 3.2Ghz	✓				
	Intel Core 2 Duo @ 2.66Ghz	✓				
	Intel Core 2 Quad @ 3.0Ghz	✓				
	Intel Xeon Core 2 Quad @ 2.8Ghz	√				
iMac [®]						
	Intel Core Duo @ 2Ghz	✓				
	Intel Core 2 Duo @ 2.16Ghz	✓				
	Intel Core 2 Duo @ 2.4Ghz	√				
	Intel Core 2 Duo @ 2.8Ghz	✓				
MacBook [®] Pro						
	Intel Core 2 Duo @ 2.33Ghz	✓				
	Intel Core 2 Duo @ 2.5Ghz	✓				
	Intel Core 2 Duo @ 2.6Ghz	✓				

Graphics Cards and Drivers

- 1. All qualifications are performed using only the official Apple default drivers that are included with a particular version of an OS (e.g. 10.5.8). Drivers acquired by any other means; e.g., directly from a graphics vendor, are considered unsupported and therefore not qualified. Note that for NVIDIA Quadro FX 4800 and GeForce 285GTX, we had to use the manufacturer driver until Apple releases the official driver with 10.6:
- 2. Autodesk received numerous reports of problems with drivers other than those released by Apple as part of the OS. As a result, Autodesk cannot guarantee the stability of Mudbox using unsupported drivers.
- 3. To verify which version of a video driver is installed on your Mac OS X system, in a Finder window, navigate to /System/Library/Extensions/(vendor extension file). With this file selected, Ctrl-click and choose Get Info to view the version information. For example, to determine the version of the video driver installed for the NVIDIA GeForce FX 8800 Ultra, select the /System/Library/Extensions/NVDANV50Hals.kext file and then Ctrl-click and choose Get Info.

Professional Graphics Cards

The following table provides the professional graphics card hardware qualifications for the Autodesk Mudbox 2010 for Macintosh® software product release.

Note: Professional graphics cards not listed in the following table are no longer tested. However, these cards may still be acceptable for use with the Mudbox software. Please refer to earlier Mudbox software for OS X qualification charts to evaluate a particular card's previous use in Mudbox. While you may continue to use one of these cards, please note that we may not be able to provide support for any issues you may encounter.

Table Legend

- √ Qualified
- Qualified with caveats. Refer to the Professional Graphics Cards Caveats & Limitations.
- Qualification planned OR in progress. Results coming shortly
- Supported although not officially qualified in our lab
- Hardware component falls below minimum system requirements to run this Autodesk
- Qualification failed due to serious problems
- No qualification planned OR not applicable
- Not yet tested.

Professional Graphics Card Qualifications for Autodesk Mudbox 2010 for Macintosh					
Graphics Card	Mac OS [®] X				
Product	v.10.5.8	v.10.6.2			
NVIDIA [®]					
Quadro FX 4800	_	✓			
Quadro FX 5600	2	_			
Quadro FX 4500	×	_			

Dual Monitor Support

Apple systems can be run in Dual Monitor configuration by using a single graphics card which supports dual output (e.g. NVIDIA Quadro FX 5600).

Professional Graphics Cards Caveats & Limitations

The following table provides a description of professional NVIDIA graphics cards caveats and limitations.

Professional NVIDIA Graphics Cards Caveats & Limitations				
Autodesk Mudbox 2010 for Macintosh				
Graphics Card	os	Caveat / Limitation	Status	Workaround
Quadro FX 4500	10.5.8	combination of directional lights, shadows and point lights which exceeds 5 will crash Mudbox		
Quadro FX 4500	10.5.8	The Mudbox Material displays artifacts when Smooth Shade is OFF (faceted display). (Bug #327195)	To be confirmed	_
Quadro FX 4500	10.5.8	Users may experience problems such as poor performance and texture layers displaying black when using the paint tools and creating textures. (Bug #327190)	To be confirmed	_
Quadro FX 4500	10.5.8	Tonemapper does not display correctly. (Bug #327200)	To be confirmed	_

Consumer Graphics Cards

The following table provides a list of tested NVIDIA GeForce® and ATI Radeon™ consumer graphics cards and driver versions for the Autodesk Mudbox 2010 for Macintosh software product release. The table also provides the results of the tested hardware components.

Note: Consumer graphics cards not listed in the following table are no longer tested. However, these cards may still be acceptable for use with the Mudbox software. Please refer to earlier Mudbox software for OS X qualification charts to evaluate a particular card's previous use in Mudbox. While you may continue to use one of these cards, please note that we may not be able to provide support for any issues you may encounter.

Table Legend

Not yet tested.

V	Testing is completed.
③	Testing is completed. Some issues found. See Consumer Graphics Cards Caveats & Limitations.
Δ	Testing is ongoing OR planned.
\Diamond	No testing is planned.
X	Hardware component falls below minimum system requirements to run this product.

Consumer Graphics Card Tested for Autodesk Mudbox 2010 for Macintosh				
Graphics Card	Mac OS [®] X			
Product	Version 10.5.8 Version 10.6.2			
NVIDIA®				
GeForce GTX 120	_	_		
GeForce GTX 285	③	®		
GeForce 8800M GT	③	•		
GeForce 8800 GT	Ø	Ø		
GeForce 8600M GT				
GeForce 7300 GT	Δ	Δ		
GeForce 9600 GT	Δ	Δ		
GeForce 7600 GT	×	×		
ATI [™]				
Radeon X1900 XT	×	×		
Radeon X1600	×	×		
Radeon HD 4870	®	_		

Consumer Graphics Card Tested for Autodesk Mudbox 2010 for Macintosh			
Graphics Card	Mac OS [®] X		
Product	Product Version 10.5.8 Version 10.6		
Radeon HD 3870	③	_	
Radeon HD 2600 Pro	③	③	

Dual Monitor Support

Apple systems can be run in Dual Monitor configuration by using a single graphics card which supports dual output (e.g. ATI Radeon x2600).

Consumer Graphics Cards Caveats & Limitations

The following table provides a description of Consumer level NVIDIA graphics cards caveats and limitations.

Consumer NVIDIA Graphics Cards Caveats & Limitations				
Autodesk Mudbox 2010 for Macintosh				
Graphics Card	os	Caveat / Limitation	Status	Workaround
GeForce GTX 285	10.5.8	Clone brush tool doesn't work with manufacturer drivers	Confirmed	There is no workaround.

The following table provides a description of Consumer level ATI graphics cards caveats and limitations.

Consumer ATI Graphics Cards Caveats & Limitations					
	Autodesk Mudbox 2010 for Macintosh				
Graphics Card	os	Caveat / Limitation	Status	Workaround	
ATI Radeon X1900	10.5.8	Non power of 2 images locks up machine	Issue reported to vendors		
ATI Radeon x1900, x1600	10.5.8	Lit sphere material does not display on this card (Bug #327184)	To be confirmed	_	
All	10.5.8	The bump mapping quality is poor	To be confirmed	_	
All	10.5.8	No shading on ATI cards		_	

System Dependent & Miscellaneous Issues

There are currently no operating system caveats / limitations to report for the current release of this Autodesk product.

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