

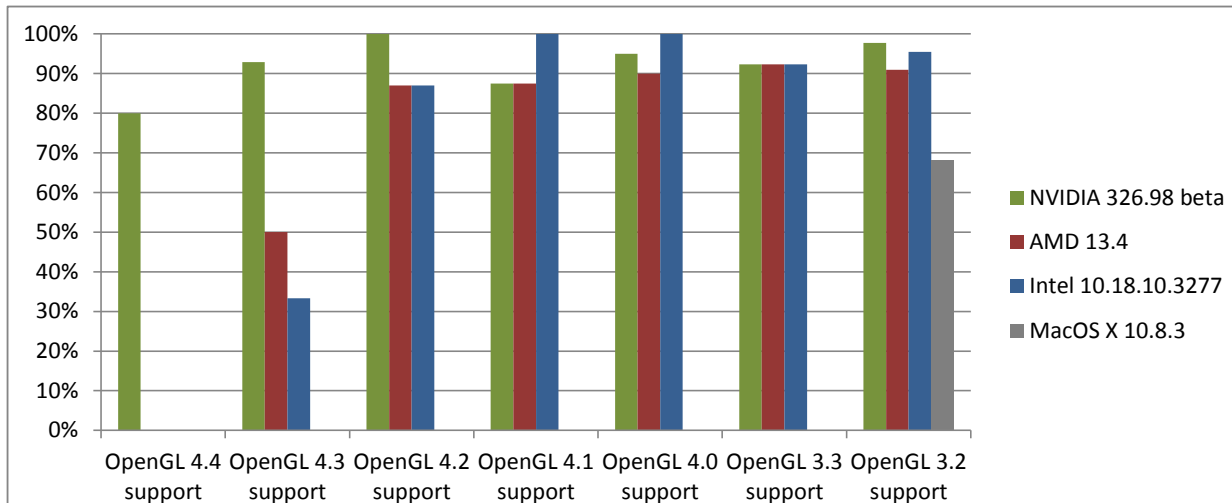
# OpenGL Status - September 2013

G-Truc Creation

Vendor	NVIDIA	AMD	Intel Windows	Apple
Release date	28/08/2013	24/04/2013	30/08/2013	14/03/2013
Drivers version	326.98 beta	13.4	10.18.10.3277	MacOS X 10.8.3
Samples versions	4.4.0.1	4.3.2.1	4.4.0.1	4.3.2.1

Summary	NVIDIA 326.98 beta	AMD 13.4	Intel 10.18.10.3277	MacOS X 10.8.3
OpenGL 4.4 support	80%	0%	0%	0%
OpenGL 4.3 support	93%	50%	33%	0%
OpenGL 4.2 support	100%	87%	87%	0%
OpenGL 4.1 support	88%	88%	100%	0%
OpenGL 4.0 support	95%	90%	100%	0%
OpenGL 3.3 support	92%	92%	92%	0%
OpenGL 3.2 support	98%	91%	95%	68%



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OpenGL 4.4	NVIDIA	AMD	Intel Windows	Apple
buffer-type	Pass	Unsupported	Unsupported	Unsupported
fbo	Pass	Unsupported	Unsupported	Unsupported
interface-matching	Fail	Unsupported	Unsupported	Unsupported
sampler-wrap	Pass	Unsupported	Unsupported	Unsupported
transform-feedback	Pass	Unsupported	Unsupported	Unsupported
Pass	4	0	0	0
Ok but not conform	0	0	0	0
Workaround	0	0	0	0
Fail	1	0	0	0
Unsupported	0	5	0	0
Sub-Total	5	5	0	0
%	80%	0%	0%	0%

OpenGL 4.3	NVIDIA	AMD	Intel Windows	Apple
atomic-counter	Pass	Pass	Unsupported	Unsupported
debug	Workaround	Unsupported	Unsupported	Unsupported
draw-without-vertex-attrib	Pass	Unsupported	Unsupported	Unsupported
image-sampling	Pass	Fail	Unsupported	Unsupported
image-store	Pass	Pass	Unsupported	Unsupported
interface-matching	Pass	Unsupported	Unsupported	Unsupported
multi-draw-indirect	Pass	Pass	Fail	Unsupported
program-compute	Pass	Pass	Fail	Unsupported
program-compute-image	Pass	Fail	Pass	Unsupported
program-subroutine	Pass	Pass	Unsupported	Unsupported
texture-buffer	Pass	Pass	Unsupported	Unsupported
texture-copy	Pass	Unsupported	Unsupported	Unsupported
texture-storage	Pass	Pass	Unsupported	Unsupported
texture-view	Pass	Unsupported	Unsupported	Unsupported
Pass	13	7	1	0

Ok but not conform	0	0	0	0
Workaround	1	0	0	0
Fail	0	2	2	0
Unsupported	0	5	0	0
Sub-Total	14	14	3	0
%	93%	50%	33%	0%

OpenGL 4.2	NVIDIA	AMD	Intel Windows	Apple
atomic-counter	Pass	Pass	Pass	Unsupported
buffer-uniform	Pass	Pass	Pass	Unsupported
clipping	Pass	Pass	Pass	Unsupported
debug-output	Pass	Pass	Fail	Unsupported
draw-base-instance	Pass	Pass	Pass	Unsupported
draw-image-space-rendering	Pass	Pass	Pass	Unsupported
fbo	Pass	Pass	Pass	Unsupported
image-load	Pass	Pass	Pass	Unsupported
image-store	Pass	Pass	Workaround	Unsupported
image-unpack	Pass	Pass	Pass	Unsupported
interface-matching	Ok	Pass	Pass	Unsupported
memory-barrier	Pass	Pass	Pass	Unsupported
picking	Pass	Pass	Pass	Unsupported
primitive-line-aa	Pass	Fail	Pass	Unsupported
sampler-fetch	Pass	Pass	Pass	Unsupported
test-depth-conservative	Pass	Pass	Pass	Unsupported
texture-array	Pass	Pass	Pass	Unsupported
texture-compressed	Pass	Pass	Pass	Unsupported
texture-conversion	Pass	Fail	Pass	Unsupported
texture-cube	Pass	Pass	Pass	Unsupported
texture-pixel-store	Pass	Pass	Fail	Unsupported
texture-storage	Pass	Workaround	Pass	Unsupported
transform-feedback-instanced	Pass	Pass	Pass	Unsupported
Pass	22	20	20	0
Ok but not conform	1	0	0	0

Workaround	0	1	1	0
Fail	0	2	2	0
Untested	0	0	0	0
Sub-Total	23	23	23	0
%	100%	87%	87%	0%

OpenGL 4.1	NVIDIA	AMD	Intel Windows	Apple
fbo-layered	Pass	Pass	Pass	Unsupported
primitive-instanced	Pass	Pass	Pass	Unsupported
primitive-tessellation-2	Pass	Pass	Pass	Unsupported
primitive-tessellation-5	Pass	Pass	Pass	Unsupported
program-64	Pass	Pass	Pass	Unsupported
program-binary	Pass	Pass	Pass	Unsupported
program-separate	Pass	Pass	Pass	Unsupported
Pass	7	7	7	0
Ok but not conform	0	0	0	0
Workaround	1	1	0	0
Fail	0	0	0	0
Untested	0	0	0	0
Sub-Total	8	8	7	0
%	88%	88%	100%	0%

OpenGL 4.0	NVIDIA	AMD	Intel Windows	Apple
blend-rtt	Pass	Pass	Pass	Unsupported
draw-indirect	Pass	Pass	Pass	Unsupported
fbo-layered	Pass	Pass	Pass	Unsupported
fbo-multisample	Pass	Pass	Pass	Unsupported
fbo-rtt	Pass	Pass	Pass	Unsupported
fbo-rtt-texture-array	Pass	Pass	Pass	Unsupported
fbo-shadow	Pass	Pass	Pass	Unsupported
primitive-instanced	Pass	Pass	Pass	Unsupported
primitive-smooth-shading	Pass	Pass	Pass	Unsupported
primitive-tessellation	Pass	Pass	Pass	Unsupported

program-64	Pass	Pass	Pass	Unsupported
program-subroutine	Pass	Fail	Pass	Unsupported
program-varying-blocks	Pass	Pass	Pass	Unsupported
program-varying-structs	Pass	Pass	Pass	Unsupported
sampler-array	Pass	Pass	Pass	Unsupported
sampler-fetch	Pass	Pass	Pass	Unsupported
sampler-gather	Pass	Pass	Pass	Unsupported
texture-buffer-rgb	Pass	Pass	Pass	Unsupported
transform-feedback-object	Pass	Pass	Pass	Unsupported
transform-feedback-stream	Workaround	Workaround	Pass	Unsupported
Pass	19	18	20	0
Ok but not conform	0	0	0	0
Workaround	1	1	0	0
Fail	0	1	0	0
Untested	0	0	0	0
Sub-Total	20	20	20	0
%	95%	90%	100%	0%

OpenGL 3.3	NVIDIA	AMD	Intel Windows	Apple
blend-index	Pass	Pass	Pass	Unsupported
blend-rtt	Pass	Pass	Pass	Unsupported
buffer-type	Fail	Fail	Fail	Unsupported
draw-instanced-array	Pass	Pass	Pass	Unsupported
query-timer	Pass	Pass	Pass	Unsupported
sampler-anisotropy-ext	Pass	Pass	Pass	Unsupported
sampler-filter	Pass	Pass	Pass	Unsupported
sampler-object	Pass	Pass	Pass	Unsupported
sampler-offset	Pass	Pass	Pass	Unsupported
sampler-wrap	Pass	Pass	Pass	Unsupported
texture-integer-rgb10a2ui	Pass	Pass	Pass	Unsupported
texture-rect	Pass	Pass	Pass	Unsupported
texture-swizzle	Pass	Pass	Pass	Unsupported
Pass	12	12	12	0

Ok but not conform	0	0	0	0
Workaround	0	0	0	0
Fail	1	1	1	0
Untested	0	0	0	0
Sub-Total	13	13	13	0
%	92%	92%	92%	0%

OpenGL 3.2	NVIDIA	AMD	Intel Windows	Apple
buffer-uniform	Pass	Pass	Fail	Pass
buffer-uniform-shared	Pass	Pass	Pass	Workaround
buffer-update	Pass	Pass	Pass	Workaround
draw-base-vertex	Pass	Pass	Fail	Fail
draw-image-space	Pass	Pass	Pass	Pass
draw-instanced	Pass	Pass	Pass	Pass
draw-multiple	Pass	Pass	Pass	Workaround
draw-without-vertex-attrib	Pass	Pass	Pass	Pass
fbo	Pass	Pass	Pass	Pass
fbo-blit	Pass	Pass	Pass	Fail
fbo-depth	Pass	Fail	Pass	Pass
fbo-depth-multisample	Pass	Fail	Pass	Pass
fbo-layered	Pass	Pass	Pass	Workaround
fbo-multisample	Pass	Pass	Pass	Workaround
fbo-multisample-explicit	Pass	Pass	Pass	Pass
fbo-multisample-integer	Fail	Fail	Pass	Fail
fbo-rtt	Pass	Pass	Pass	Workaround
fbo-rtt-texture-array	Pass	Pass	Pass	Workaround
fbo-shadow	Pass	Pass	Pass	Pass
fbo-srgb	Pass	Pass	Pass	Fail
glsl-builtin-blocks	Pass	Pass	Pass	Pass
glsl-discard	Pass	Pass	Pass	Pass
glsl-precision	Pass	Pass	Pass	Pass
primitive-front-face	Pass	Pass	Pass	Pass
primitive-point	Pass	Pass	Pass	Pass

primitive-point-sprite	Ok	Pass	Pass	Pass
primitive-shading	Pass	Pass	Pass	Pass
query-conditional	Pass	Fail	Pass	Pass
query-occlusion	Pass	Pass	Pass	Pass
sync	Pass	Pass	Pass	Workaround
test-scissor	Pass	Pass	Pass	Workaround
texture-2d	Pass	Pass	Pass	Pass
texture-3d	Pass	Pass	Pass	Pass
texture-buffer	Pass	Pass	Pass	Pass
texture-compressed-ext	Pass	Pass	Pass	Pass
texture-cube	Pass	Pass	Pass	Pass
texture-fetch	Pass	Pass	Pass	Pass
texture-format	Pass	Pass	Pass	Pass
texture-integer	Pass	Pass	Pass	Pass
texture-offset	Pass	Pass	Pass	Pass
texture-pixel-store	Pass	Pass	Pass	Pass
texture-streaming	Pass	Pass	Pass	Pass
transform-feedback-interleave	Pass	Pass	Pass	Workaround
transform-feedback-separate	Pass	Pass	Pass	Pass
Pass	42	40	42	30
Ok but not conform	1	0	0	0
Workaround	0	0	0	10
Fail	1	4	2	4
Untested	0	0	0	0
Sub-Total	44	44	44	44
%	98%	91%	95%	68%
Extensions				
330-fbo-multisample-nv	Pass	Pass		
400-sampler-array-nv	Pass			
420-blend-op-amd		Pass		
420-buffer-pinned-amd		Pass		
420-fbo-layered-amd		Pass		

420-fbo-multisample-dsa-nv	Pass			
420-fbo-multisample-amd		Pass		
420-fbo-srgb-decode-ext	Pass	Pass	Fail	
420-primitive-bindless-nv	Pass			
420-test-depth-clamp-amd		Pass		
420-texture-bindless-nv	Pass			
420-texture-sparse-amd		Pass		
430-direct-state-access-ext	Pass			
Pass	7	8	0	0
Ok but not conform	0	0	0	0
Workaround	0	0	0	0
Fail	0	0	1	0
Untested	0	0	0	0
Sub-Total	7	8	1	0
%	100%	100%	0%	0%

OpenGL ES 2.0				
es-200-draw-elements	Pass		Pass	Pass
Pass	1	0	1	1
Ok but not conform	0	0	0	0
Workaround	0	0	0	0
Fail	0	0	0	0
Untested	0	0	0	0
Sub-Total	1	0	1	1
%	100%	0%	100%	100%