

OpenGL Matrix - February 2014

G-Truc Creation

Vendor	NVIDIA					AMD					Intel			Mesa		Apple
Drivers version	334.89					14.1 beta					3412			git-10.1		10.9
Release date	18/02/2014					01/02/2014					29/01/2014			20/02/2013		22/10/2013
Platforms	G80	Tesla	GT21X	Fermi	Kepler	R600	RV670	RV700	EG	Cayman	S.I.	C.I.	IVB	HSW	Mesa	MacOS X
OpenGL 4.4	63%	63%	63%	100%	100%	0%	0%	0%	63%	63%	63%	63%	0%	0%	38%	0%
OpenGL 4.3	81%	81%	81%	100%	100%	0%	0%	0%	100%	100%	100%	100%	57%	67%	48%	0%
OpenGL 4.2	67%	67%	67%	100%	100%	75%	75%	75%	100%	100%	100%	100%	92%	100%	75%	8%
OpenGL 4.1	67%	67%	67%	100%	100%	83%	83%	83%	100%	100%	100%	100%	100%	100%	50%	83%
OpenGL 4.0	0%	8%	46%	100%	100%	31%	54%	62%	100%	100%	100%	100%	100%	100%	69%	100%
OpenGL 3.3	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
OpenGL 3.2	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
OpenGL 3.1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
OpenGL 3.0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
OpenGL 2.1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
OpenGL 2.0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Nomenclature:

Supported
Not supported
Support added from previous report

<u>ARB robust buffer access behavior</u>	V	V	V	V	V	X	X	X	X	X	X	X	X	X	X	X
<u>ARB debug output</u>	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	X
<u>ARB indirect parameters</u>	X	X	X	V	V	X	X	X	X	X	X	X	X	X	X	X
<u>ARB compute variable group size</u>	X	X	X	V	V	X	X	X	X	X	X	X	X	X	X	X
<u>ARB compatibility</u>	V	V	V	V	V	V	V	V	V	V	V	V	V	V	X	X
<u>ARB cl event</u>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<u>ARB bindless texture</u>	X	X	X	X	V	X	X	X	X	X	X	X	X	X	X	X
<u>EXT texture sRGB decode</u>	V	V	V	V	V	X	X	X	V	V	V	V	V	V	X	V
<u>EXT texture mirror clamp</u>	V	V	V	V	V	V	V	V	V	V	V	V	X	X	X	V
<u>EXT framebuffer multisample blit scaled</u>	V	V	V	V	V	X	X	X	X	X	X	X	X	X	X	V
<u>EXT direct state access</u>	V	V	V	V	V	V	V	V	V	V	V	V	X	X	X	X
<u>EXT depth bounds test</u>	V	V	V	V	V	X	X	X	X	X	V	V	X	X	X	V
<u>EXT clip control</u>	X	X	X	X	X	X	X	X	X	X	X	X	V	V	X	X
<u>OES_compressed_ETC1_RGB8_texture</u>	X	X	X	X	X	X	X	X	X	X	X	X	V	V	X	X
<u>NV vertex buffer unified memory</u>	V	V	V	V	V	X	X	X	X	X	X	X	X	X	X	X
<u>NV texture multisample</u>	V	V	V	V	V	X	X	X	X	X	X	X	X	X	X	X
<u>NV texture barrier</u>	V	V	V	V	V	V	V	V	V	V	V	V	X	X	X	V
<u>NV shader buffer store</u>	X	X	X	V	V	X	X	X	X	X	X	X	X	X	X	X
<u>NV shader buffer load</u>	V	V	V	V	V	X	X	X	X	X	X	X	X	X	X	X
<u>NV shader atomic float</u>	X	X	X	V	V	X	X	X	X	X	X	X	X	X	X	X
<u>NV multisample coverage</u>	V	V	V	V	V	X	X	X	X	X	X	X	X	X	X	X
<u>NV explicit multisample</u>	V	V	V	V	V	V	V	V	V	V	V	V	X	X	X	X
<u>NV copy image</u>	V	V	V	V	V	V	V	V	V	V	V	V	X	X	X	X
<u>NV bindless texture</u>	X	X	X	X	V	X	X	X	X	X	X	X	X	X	X	X
<u>NV bindless multi draw indirect</u>	X	X	X	V	V	X	X	X	X	X	X	X	X	X	X	X
<u>NV blend equation advanced</u>	X	X	X	V	V	X	X	X	X	X	X	X	X	X	X	X
<u>INTEL map texture</u>	X	X	X	X	X	X	X	X	X	X	X	X	X	V	X	X
<u>INTEL fragment shader ordering</u>	X	X	X	X	X	X	X	X	X	X	X	X	V	V	X	X
<u>INTEL conservative rasterization</u>	X	X	X	X	X	X	X	X	X	X	X	X	X	V	X	X
<u>AMD vertex shader viewport index</u>	X	X	X	X	X	X	X	X	V	V	V	V	X	X	X	X
<u>AMD vertex shader layer</u>	X	X	X	X	X	X	X	X	V	V	V	V	X	X	X	X
<u>AMD transform feedback3 lines triangles</u>	X	X	X	X	X	X	X	X	V	V	V	V	X	X	X	X
<u>AMD stencil operation extended</u>	X	X	X	X	X	X	X	X	X	X	V	V	X	X	X	X

<u>AMD sparse texture</u>	X	X	X	X	X	X	X	X	X	X	V	V	X	X	X	X
<u>AMD shader trinary minmax</u>	X	X	X	X	X	X	X	X	X	X	V	V	X	X	X	X
<u>AMD seamless cubemap per texture</u>	X	X	X	X	V	X	X	V	V	V	V	V	X	X	X	X
<u>AMD sample positions</u>	X	X	X	X	X	V	V	V	V	V	V	V	X	X	X	X
<u>AMD query buffer object</u>	X	X	X	X	X	X	X	X	V	V	V	V	X	X	X	X
<u>AMD pinned memory</u>	X	X	X	X	X	V	V	V	V	V	V	V	X	X	X	X
<u>AMD occlusion_query_event</u>	X	X	X	X	X	X	X	X	X	X	X	V	X	X	X	X
<u>AMD blend minmax factor</u>	X	X	X	X	X	X	X	X	X	V	V	V	X	X	X	X
<u>ATI texture mirror once</u>	V	V	V	V	V	V	V	V	V	V	V	V	X	X	X	V
Support	36%	36%	36%	54%	62%	18%	18%	20%	32%	36%	46%	48%	14%	18%	2%	12%

OpenGL 4.4	G80	Tesla	GT21X	Fermi	Kepler	R600	RV670	RV700	EG	Cayman	S.I.	C.I.	IVB	HSW	Mesa	MacOS X
<u>ARB buffer storage</u>	X	X	X	V	V	X	X	X	X	X	X	X	X	X	X	X
<u>ARB clear texture</u>	X	X	X	V	V	X	X	X	V	V	V	V	X	X	X	X
<u>ARB enhanced layouts</u>	V	V	V	V	V	X	X	X	X	X	X	X	X	X	X	X
<u>ARB multi bind</u>	V	V	V	V	V	X	X	X	V	V	V	V	X	X	X	X
<u>ARB query buffer object</u>	X	X	X	V	V	X	X	X	V	V	V	V	X	X	X	X
<u>ARB texture mirror clamp to edge</u>	V	V	V	V	V	X	X	X	V	V	V	V	X	X	V	X
<u>ARB texture stencil8</u>	V	V	V	V	V	X	X	X	X	X	X	X	X	X	V	X
<u>ARB vertex type 10f 11f 11f rev</u>	V	V	V	V	V	X	X	X	V	V	V	V	X	X	V	X
Support	63%	63%	63%	100%	100%	0%	0%	0%	63%	63%	63%	63%	0%	0%	38%	0%

OpenGL 4.3	G80	Tesla	GT21X	Fermi	Kepler	R600	RV670	RV700	EG	Cayman	S.I.	C.I.	IVB	HSW	Mesa	MacOS X
<u>GL ARB vertex attrib binding</u>	V	V	V	V	V	X	X	X	V	V	V	V	V	V	V	X
<u>GL ARB texture view</u>	V	V	V	V	V	X	X	X	V	V	V	V	X	X	V	X
<u>GL ARB texture storage multisample</u>	V	V	V	V	V	X	X	X	V	V	V	V	V	V	V	X
<u>GL ARB texture query levels</u>	V	V	V	V	V	X	X	X	V	V	V	V	X	X	V	X
<u>GL ARB texture buffer range</u>	V	V	V	V	V	X	X	X	V	V	V	V	V	V	V	X
<u>GL ARB stencil texturing</u>	V	V	V	V	V	X	X	X	V	V	V	V	V	V	X	X
<u>GL ARB shader storage buffer object</u>	X	X	X	V	V	X	X	X	V	V	V	V	X	V	X	X
<u>GL ARB shader image size</u>	X	X	X	V	V	X	X	X	V	V	V	V	X	X	X	X
<u>GL ARB program interface query</u>	V	V	V	V	V	X	X	X	V	V	V	V	V	V	X	X
<u>GL ARB multi draw indirect</u>	X	X	X	V	V	X	X	X	V	V	V	V	V	V	V	X

GL ARB_invalidate_subdata	V	V	V	V	V	X	X	X	V	V	V	V	X	X	V	X
GL ARB_internalformat_query2	V	V	V	V	V	X	X	X	V	V	V	V	V	V	X	X
GL ARB_framebuffer_no_attachments	V	V	V	V	V	X	X	X	V	V	V	V	V	V	X	X
GL ARB_fragment_layer_viewport	V	V	V	V	V	X	X	X	V	V	V	V	X	X	X	X
GL ARB_explicit_uniform_location	V	V	V	V	V	X	X	X	V	V	V	V	X	X	X	X
GL ARB_ES3_compatibility	V	V	V	V	V	X	X	X	V	V	V	V	V	V	V	X
GL_KHR_debug	V	V	V	V	V	X	X	X	V	V	V	V	V	V	V	X
GL ARB_copy_image	V	V	V	V	V	X	X	X	V	V	V	V	V	V	X	X
GL ARB_compute_shader	X	X	X	V	V	X	X	X	V	V	V	V	X	V	X	X
GL ARB_clear_buffer_object	V	V	V	V	V	X	X	X	V	V	V	V	X	X	V	X
GL ARB_arrays_of_arrays	V	V	V	V	V	X	X	X	V	V	V	V	V	V	X	X
Support	81%	81%	81%	100%	100%	0%	0%	0%	100%	100%	100%	100%	57%	67%	48%	0%

OpenGL 4.2	G80	Tesla	GT21X	Fermi	Kepler	R600	RV670	RV700	EG	Cayman	S.I.	C.I.	IVB	HSW	Mesa	MacOS X
<u>GL ARB transform feedback instanced</u>	X	X	X	V	V	V	V	V	V	V	V	V	V	V	V	X
<u>GL ARB texture compression bptc</u>	X	X	X	V	V	X	X	X	V	V	V	V	V	V	X	X
<u>GL ARB texture storage</u>	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	X
<u>GL ARB shading language packing</u>	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	X
<u>GL ARB shading language 420pack</u>	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	X
<u>GL ARB shader image load store</u>	X	X	X	V	V	X	X	X	V	V	V	V	X	V	X	X
<u>GL ARB shader atomic counters</u>	X	X	X	V	V	X	X	X	V	V	V	V	V	V	V	X
<u>GL ARB map buffer alignment</u>	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	X
<u>GL ARB internalformat query</u>	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
<u>GL ARB conservative depth</u>	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	X
<u>GL ARB compressed texture pixel storage</u>	V	V	V	V	V	V	V	V	V	V	V	V	V	V	X	X
<u>GL ARB base instance</u>	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	X
Support	67%	67%	67%	100%	100%	75%	75%	75%	100%	100%	100%	100%	92%	100%	75%	8%

[illegible]

