Subject: NVIDIA Quadro FX 4000 Card (Any experience in using with IDL)
Posted by gambler_1650 on Thu, 18 Nov 2004 14:13:31 GMT
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Greetings all,

I'm an IDL programmer at National Marine Fisheries and was wondering
if anyone has had any experience using an NVIDIA Quadro FX 4000 card
with IDL. We're looking for a workstation card due to the graphically
intensive programs we hope to write down the road. It supports
OpenGL, and we're hoping to also use it under linux so if anyone also
happens to be using linux, IDL and said card or even earlier models of
the Quadro FX line... (yeah, I know, probably pretty unlikely), any
real world info would be helpful.

Thanks,
Robert Gamble

Subject: Re: NVIDIA Quadro FX 4000 Card (Any experience in using with IDL)
Posted by Matt Feinstein on Thu, 18 Nov 2004 15:38:31 GMT
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On 18 Nov 2004 06:13:31 -0800, gambler_1650@yahoo.com (Robert Gamble)
wrote:

> I'm an IDL programmer at National Marine Fisheries and was wondering
> if anyone has had any experience using an NVIDIA Quadro FX 4000 card
> with IDL. We're looking for a workstation card due to the graphically
> intensive programs we hope to write down the road. It supports
> OpenGL, and we're hoping to also use it under linux so if anyone also
> happens to be using linux, IDL and said card or even earlier models of
> the Quadro FX line... (yeah, I know, probably pretty unlikely), any
> real world info would be helpful.

I have a Quadro FX 1000 card on my workstation, and it works with all
applications. I also do OpenGL programming, and it works for that too.

As with just about any recent nVidia (or ATI) card, the only real
requirement is to have the current video driver installed. For the
Quadro cards, you've got to be somewhat careful about the power
demands-- they are significantly higher than for, say, an
off-the-shelf FX 5200 (which also works and is much cheaper).

FYI, here is the output of a program that queries the various
extension strings and some framebuffer parameters:

_____

alpha = 8 blue = 8 red = 8 green = 8
depth bits = 24 texture size = 4096 viewport size = (4096, 4096)
acc alpha = 16 acc red = 16 acc green = 16 acc blue = 16
max clip planes = 6 max vertices = 4096 max indices = 4096 stencil
bits = 0
 Vendor = NVIDIA Corporation
 Renderer = Quadro FX 1000/AGP/SSE2
 OpenGL version = 1.5.1
 Gl extensions = GL_ARB_depth_texture GL_ARB_fragment_program
GL_ARB_fragment_program_shadow GL_ARB_fragment_shader GL_ARB_imaging
GL_ARB_multisample GL_ARB_multitexture GL_ARB_occlusion_query
GL_ARB_point_parameters GL_ARB_point_sprite GL_ARB_shadow
GL_ARB_shader_objects GL_ARB_shading_language_100
GL_ARB_texture_border_clamp GL_ARB_texture_compression
GL_ARB_texture_cube_map GL_ARB_texture_env_add
GL_ARB_texture_env_combine GL_ARB_texture_env_dot3
GL_ARB_texture_mirrored_repeat GL_ARB_transpose_matrix
GL_ARB_vertex_buffer_object GL_ARB_vertex_program GL_ARB_vertex_shader
GL_ARB_window_pos GL_S3_s3tc GL_EXT_texture_env_add GL_EXT_abgr
GL_EXT_bgra GL_EXT_blend_color GL_EXT_blend_func_separate
GL_EXT_blend_minmax GL_EXT_blend_subtract GL_EXT_compiled_vertex_array
GL_EXT_Cg_shader GL_EXT_draw_range_elements GL_EXT_fog_coord
GL_EXT_multi_draw_arrays GL_EXT_packed_pixels GL_EXT_paletted_texture
GL_EXT_pixel_buffer_object GL_EXT_point_parameters
GL_EXT_rescale_normal GL_EXT_secondary_color
GL_EXT_separate_specular_color GL_EXT_shadow_funcs
GL_EXT_shared_texture_palette GL_EXT_stencil_two_side
GL_EXT_stencil_wrap GL_EXT_texture3D GL_EXT_texture_compression_s3tc
GL_EXT_texture_cube_map GL_EXT_texture_edge_clamp
GL_EXT_texture_env_combine GL_EXT_texture_env_dot3
GL_EXT_texture_filter_anisotropic GL_EXT_texture_lod
GL_EXT_texture_lod_bias GL_EXT_texture_object GL_EXT_vertex_array
GL_HP_occlusion_test GL_IBM_rasterpos_clip
GL_IBM_texture_mirrored_repeat GL_KTX_buffer_region GL_NV_blend_square
GL_NV_copy_depth_to_color GL_NV_depth_clamp GL_NV_fence
GL_NV_float_buffer GL_NV_fog_distance GL_NV_fragment_program
GL_NV_fragment_program_option GL_NV_half_float
GL_NV_light_max_exponent GL_NV_multisample_filter_hint
GL_NV_occlusion_query GL_NV_packed_depth_stencil
GL_NV_pixel_data_range GL_NV_point_sprite GL_NV_primitive_restart
GL_NV_register_combiners GL_NV_register_combiners2
GL_NV_texgen_reflection GL_NV_texture_compression_vtc
GL_NV_texture_env_combine4 GL_NV_texture_expand_normal
GL_NV_texture_rectangle GL_NV_texture_shader GL_NV_texture_shader2
GL_NV_texture_shader3 GL_NV_vertex_array_range
GL_NV_vertex_array_range2 GL_NV_vertex_program GL_NV_vertex_program1_1
GL_NV_vertex_program2 GL_NV_vertex_program2_option

GL_SGIS_generate_mipmap GL_SGIS_texture_lod GL_SGIX_depth_texture
GL_SGIX_shadow GL_SUN_slice_accum GL_WIN_swap_hint
WGL_EXT_swap_control GL_Autodesk_valid_back_buffer_hint
Glu version = 1.2.2.0 Microsoft Corporation
Glu extensions = GL_EXT_bgra
wgl extensions = WGL_ARB_buffer_region WGL_ARB_extensions_string
WGL_ARB_make_current_read WGL_ARB_multisample WGL_ARB_pbuffer
WGL_ARB_pixel_format WGL_ARB_render_texture WGL_EXT_extensions_string
WGL_EXT_swap_control WGL_NV_float_buffer WGL_NV_render_depth_texture
WGL_NV_render_texture_rectangle WGL_I3D_genlock WGL_NV_swap_group
Pbuffer extensions initialized:
wglCreatePbufferARB
wglGetPbufferDCARB
wglReleasePbufferDCARB
wglDestroyPbufferARB
wglQueryPbufferARB
wglGetPixelFormatAttribfvARB
wglGetPixelFormatAttribivARB
wglChoosePixelFormatARB

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Matt Feinstein

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There is no virtue in believing something that can be proved to be true.

Subject: Re: NVIDIA Quadro FX 4000 Card (Any experience in using with IDL)
Posted by netnews.comcast.net on Fri, 19 Nov 2004 05:36:03 GMT
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Robert Gamble wrote:
> Greetings all,
>
> I'm an IDL programmer at National Marine Fisheries and was wondering
> if anyone has had any experience using an NVIDIA Quadro FX 4000 card
> with IDL.

Hey Robert,

FWIW, I don't think it is worth dropping that kind of cash on a
"professional" graphics adapter. The industry changes so fast that
you'll get a lot more bang-for-buck dropping $300/year on a card instead
of $2k every 3 years or so (unless Mike is willing to buy you a new
Quadro each year :)

It would be nice if we could bench the Quadro/Geforce and FireGL/Radeon

cards in IDL. Each of these products pairs are based on the same silicon. My suspicion is that the gain in performance over the equivalent consumer cards in IDL is small (10-15%).

Take all of this with a shaker of salt. The last quadro I worked with was based on the geforce 2 core. That being said, the way ATI and nVidia market these products hasn't changed.

Give me a shout if you have any questions.

-Rick works at NMFS too Towler

Subject: Re: NVIDIA Quadro FX 4000 Card (Any experience in using with IDL)
Posted by netnews.comcast.net on Sat, 20 Nov 2004 06:16:55 GMT
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netnews.comcast.net wrote:

> It would be nice if we could bench the Quadro/Geforce and FireGL/Radeon
> cards in IDL. Each of these products pairs are based on the same
> silicon. My suspicion is that the gain in performance over the
> equivalent consumer cards in IDL is small (10-15%).

Has anyone with a Radeon card looked into the soft FireGL mods out there? Adrian Wong over at rojakpot.com put together a guide on the freefiregl soft mod:

http://www.rojakpot.com/default.aspx?location=3&var1=105 &var2=0

Anyone with a newer radeon card willing to give it a go and report their findings?

It's a nVidia shop around here so I haven't played with this. Supposedly there are similar soft mods for nVidia cards but the last time I tried (2+ years) they didn't do much. Maybe it is time for me to investigate this again.

-Rick
