
Subject: Re: Which Graphics Card?

Posted by [Rick Towler](#) on Fri, 08 Jun 2001 18:10:44 GMT

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You had to ask....

Andy's suggestion of nVidia's Geforce3 based cards is a good one. In fact, for doing "professional" work with a "gamers" video card I feel your only options are nVidia's products. ATI's radeon is another popular gamers card that performs almost as well as the Geforce line but ATI has historically delivered poor drivers (this comment is based on hardware reviews, not on personal experience). But, the GF3 isn't your only option.

nVidia segments their market by offering consumer and professional products based on the same core technology (consumer lines are based on the GF/GF2/GF3 and the professional lines are based on the Quadro). AFAICT, the only real difference between the consumer cards and the pro cards is that the pro cards sport a different BIOS, a few resistors and better OpenGL drivers. How much better? I wish I knew since that might drive my next purchasing decision. Maybe someone with a Quadro would be willing to do some benchmarks?

When purchasing a Geforce2/Quadro based card there are a few things to look out for. All Geforce chips are limited to some extent by memory bottlenecks. Card manufacturers have used this fact to segment the market to the point of mass confusion. When shopping for a GF2, you will find 64 and 128 bit SDR based cards and 64/128 bit DDR based cards with RAM speeds that vary from 7.5 to 4 ns. The best performance will be had with the 128bit DDR based cards with the fastest RAM available. These products are generally labeled "ultra" as in the WinFast Geforce2 Ultra.

If you are looking at a Geforce3 things are a little simpler. This card started hitting the streets last month and there are only a few variants available. All seem to be shipping with 128 bit DDR running at 4ns. Your only options look like TV out, DVI-I, and the amount of RAM (64 vs 128MB). I highly doubt that you would ever make use of 32 let alone 64 MB of video memory so don't waste your money on the 128 MB version.

A bonus option with the GF cards is that they offer full scene anti-aliasing (at the cost of raw speed). I have found this feature to be indispensable when rendering 3d scenes for animation and am now rendering final animations on my Geforce based workstations exclusively. (on side note, with newer driver revisions make sure your desktop is set to 32 bit and the default color depth for textures is set to "desktop color depth" or 32bpp otherwise IDL will bomb when opening an object graphics window when anti-aliasing is enabled)

I know I sound like a commercial here but stick with me....

nVidia has also released the geforce2go chip. This is the first real step forward for portable 3d in years. For those looking for a portable only solution or for a laptop that can actually render high poly scenes this is your only choice. Don't think you are going to get this in that ultra slim vaio though.

For you Macatista's, rejoice that decent 3d power has come to your world too. The GF3 was released for both the PC and Mac. Since this is the first nVidia product for the mac I don't know what shape the drivers are in but at least you got the hardware.

For the penguin's, nVidia is producing drivers for XFree86 4.x. Last time I checked they were lagging behind windoze platforms in performance but quality has been steadily improving.

If you do end up with an nVidia based card (especially the GF3), I recommend ditching the vendor's drivers and using the reference drivers available from nVidia's site. You may lose vendor specific add-ons (TV-out) but the drivers will be "fresher". With GF/GF2 based cards this is not as simple since with the latest release (v12.49) performance in IDL object graphics has decreased a bit.

good luck!

-Rick Towler
Object Graphics Junkie

"David Fanning" <davidf@dfanning.com> wrote in message
news:MPG.158a92bbffa84607989e25@news.frii.com...

> Hi Folks,

>

> OK, the wife came home from the last day of school with
> a brochure for a special deal on computers. (Thanks to
> the recent passage of the mill levy all classrooms are
> getting an updated PC.) The company (a large one who
> has not done too well lately) has offered to let school
> district employees in on the deal. The prices are
> fantastic. (But, alas, that super-thin Sony laptop
> I've been lusting after ever since the chiropractor
> told me to stop lugging my mammoth Dell machine around,
> is not on the list.)

>

> But this baby needs a graphics card. Here's my question:

> what's the best graphics card on the market for under \$500?
> It should make IDL object graphics scream. :-)
>
> Cheers,
>
> David
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> --
> David Fanning, Ph.D.
> Fanning Software Consulting
> Phone: 970-221-0438 E-Mail: davidf@dfanning.com
> Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
> Toll-Free IDL Book Orders: 1-888-461-0155
