Subject: Re: IDL Objects Graphics cache and crash
Posted by Rick Towler on Mon, 11 Mar 2002 18:50:47 GMT
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>> In IDL online help topic "The Graphics Object Hierarchy -> The
>> Rendering Process" one can read about draw cache: "Subsequent draws
>> of this graphic atom to the same destination can then be drawn very
>> efficiently."
>
> Hey cool! I never noticed that paragraph before. (I've never noticed
> the behaviour it describes, either.)

I whipped up a little hack to test this and I do see the benefits in high polygon scenes. I suspect that what is being cached are the vertex normals used to compute lighting. Low poly scenes aren't limited by these extra calculations so you don't see the benefit. My test used an orb with a density of 10. Without changing the vertex data I would get around 65 frames/second. When I did change the vertex data on each frame I got around 15 fps (you need to comment out the "self->BuildPoly" line in orb::setproperty for this to work).

>> But it seems not to work as declared. When I change HIDE property of
>> some graphic atom and then draw window it takes the same time as
>> first drawing. What's wrong?
>
> Probably the documentation.
>
> By the way, I find the paragraph immediately before the one you refer
> to particularly amusing--the one that begins, "The order in which
> objects are added to the hierarchy will have an impact...". It fails
> to mention the fact that the visibility of all OG atoms, except
> images, is controlled by position in 3D space, not by drawing order.
>

Not totally true. Visibility of OG atoms is controlled by position in 3D space AND by drawing order. The latter only comes into play when your atoms are transparent (textured with a image containing an alpha channel). Karl might have to correct me but as the view heirarchy is traversed the atoms are drawn negative z verts to positive. This has implications both in the visibility of the scene as a whole (seeing thru one atom to another) and for the visibility of the atoms themselves (seeing the back side of a transparent 3d object). For a full discussion on this search the newsgroup for "pimento problems".

>> I tried different renderer and retain, but can not get any
>> acceleration. I use Win98, IDL 5.4, video ASUS AGP3800.

>

How do you know that you aren't seeing any acceleration? In simple scenes you will probably not see a difference. Have you tried an OG benchmark? The TNT2 chipset on that card is fairly decent and should provide an improvement over the software renderer. I suggest running time_test_gr2.pro with both the software and hardware renderers. (if you don't have a copy, myself or others on the list can provide one)

On the subject of general stability, I second Mark's comments. The video driver can be one source of problems but only when rendering in hardware mode. If you use the software renderer and still run into problems it is probably not your driver. Also, win9x is very unforgiving when you are sloppy with OO programming in IDL. I have had much better luck with Win2k.

-Rick
