Subject: Re: Object Graphics fonts
Posted by Michael Wallace on Wed, 09 Jun 2004 19:46:02 GMT
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> Is it possible that using IDLgrWindow is giving you better results only
> because the dimensions are larger? The default IDLgrBuffer size is 640x480.
>
> Aside from the frame buffer size difference, I don't see how hardware
> rendering would produce a better display, where text is concerned. I could
> see how turning on line or polygon or even full-screen AA might help lines
> and polygons, but text is now drawn with texture maps and I'm not sure that
> graphics cards should be messing with texture contents other than performing
> the usual interpolations.

Well, maybe I spoke too quickly. Using an IDLgrWindow gives me different results than using and IDLgrBuffer. The fonts look good in both, but the fonts are larger in the IDLgrWindow than they are in the IDLgrBuffer. I did make sure to have the DIMENSIONS keyword set to the same value for both of my tests. If I look at the differences between the two images, there are very subtle changes in pixel position (usually just one pixel off) for an axis or other lines, but there is a definite difference in the font size. This is why I made my previous comment about the fonts looking "better" in the IDLgrWindow... the fonts were slightly bigger and so they appeared cleaner. I didn't realize that the size of the fonts was just slightly larger.

It does seem odd that only changing one line of code to use an IDLgrBuffer instead of an IDLgrWindow would cause these little one pixel differences and a slight font size difference. Is there an explanation for this or does this get chalked up to the mystery that is IDL?

> IDL 6.0 was the first release with the FreeType-based texture mapping
> rendering for IDLgrText. We've made a few bug fixes and a lot of
> improvements in this area for IDL 6.1. Without an exact testcase I can use
> to compare 6.0 and 6.1 text rendering, I can't tell if Michael's specific
> concerns are addressed or not. I looked through the bug database and found
> that I fixed a problem that sounds very much what Michael is describing.
> The problem would occur when the model space was scaled unequally and a
> non-default baseline and updir was used. In any event, 6.1 may address the
> problem.

Well, since the fonts I was concerned with were Y axis fonts, they would have non-standard UPDIR and BASELINE. And in my code I would usually create the axis in one command and then use SetProperty to set the text of the axis. I don't know enough to know if anything I've done has caused the model space to scale unequally or not.

Speaking of 6.1, when will be able to get our grubby little hands on it?
;-)

-Mike
