Subject: Re: Object Graphics Vector Output
Posted by Karl Schultz on Wed, 29 Sep 2004 23:15:31 GMT

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"Karl Schultz" <kschultz_no_spam@rsinc.com> wrote in message
news:10lmebnk3nkjcb@corp.supernews.com...
>
snip

> 3) In your test program, you are putting the polygon first in the model
and
> using DEPTH_OFFSET to get it to draw "behind" the lines in the
IDLgrWindow.
> Depth buffer controls like DEPTH_OFFSET simply don't work in vector
graphics
> because there is no depth buffer. IDL tries its best to sort primitives
by
> depth in vector output, but it simply can't do all the things that a real
> raster depth buffer can do.

I have to take part of this one back, but it is a good thing.

DEPTH_OFFSET actually works with vector output. When DEPTH_OFFSET=1 in the
testcase, the polygon appears first in the PS file, because it is
effectively deeper in depth. So, it draws first, and then the lines draw on
top of it. Effectively there were no depth buffer ties between the lines
and the polygon. When DEPTH_OFFSET=0, the polygon appears after the lines
in the PS file, so it will draw over the lines. This gives the same visual
appearance as on the screen - the polygon draws first, because it is first
in the model, but the depth buffer enforces the "tie" rule that ties go to
the first prim to draw at a given pixel, and so the depth buffer rejects the
lines.

But the other more advanced depth buffer controls such as
DEPTH_TEST_FUNCTION can't be emulated in vector output.

Karl