Subject: Re: [update]: artifacts with volume rendering
Posted by s[1] on Wed, 26 Feb 2003 17:20:31 GMT
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On Wed, 26 Feb 2003, Karl Schultz wrote:
> ...
> I'm not a wizard in this area, but I know that sampling at twice the
> frequency can remove these aliasing problems. I changed your window size to
> 100x100 and made the volume 200x200x200 and that made the artifacts
> disappear or at least become less noticable.
>
Yes, by making the window small compared to the volume size the artefacts disappear - but what you really want is to have a large window and asmall volume or a zoom into a volume, so that's no solution.

> ...
> OK. As it stands, the interpolator doesn't know that you don't want the
> zero voxels to contribute to the image at all, and so includes them in the
> interpolation.
>
I somehow was hoping the ZERO_OPACITY_SKIP keyword would handle this.
>
> Here's another idea, which I'm sorry that I didn't suggest sooner.
> Use two 3D datasets in IDLgrVolume.
> The first dataset is your real volume data. The second one is a mask
> volume. The voxels are 255 where you want voxels in the first dataset to be
> displayed and 0 where you don't. You would set the VOLUME_SELECT property
> to 1. This may not help the aliasing problem, but it might be a better way
> to cut cubes out of your volume - you wouldn't have to damage your original
> data.
>
Thanks for the tip, but wouldn't this be a performance penalty? My technique only needs to multiple the dataset with the mask once, which is really fast, this technique needs that multiplication for every rendering.

Best regards,

Sebastian