Subject: Re: VTK + IDL
Posted by Chris Lee on Wed, 25 Aug 2004 14:59:56 GMT
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In article <da6f35c7.0408241737.7a23a499@posting.google.com>, "Hee Chun" <chun.42@osu.edu> wrote:

> Hello,
> I learned from the previous post(from Mike) that: 'OpenGL doesn't have
> the scientific analysis capabilities of IDL and IDL
> doesn't have the graphics constructs of OpenGL'. But I need both
> analysis capabilities and graphics display for the medical image data
> sets.
> Is there any way to interface between VTK and IDL using DLM? If there
> is, Is it very hard to implement it? What kinds of problems do I need to
> consider? Where is the good starting point at least to open the 3d
> object rendered by VTK on the draw window of IDL? Any
> tips/suggestions/advices will be greatly appreciated. Thanks.
> HC

IDL can do a lot of what VTK appears to do. I.e generate 2d and 3d images/plots. If you wanted to draw a surface for example, you would you SHADE_SURF

```
;make some data
x=(findgen(100)-50.)#replicate(1,100)
y=transpose(x)
r=sqrt(x^2+y^2)
r=r*10.*!pi/180.
d=(cos(r)*exp(-r^2/50.))

;draw the data
shade_surf, d, ax=50.
```

IDL works a bit differently to VTK, instead of making analytic functions and sampling them (this is what MATLAB does, right?), you make the data first (or read the data) and make the function out of the data.

IDL is VTK with added data analysis. PV-WAVE, the poor , disowned sibling of IDL, uses VTK as the graphics backend (hidden beneath layers of API). If you want to draw some 3d objects in IDL you can, you'll probably need to learn the object graphics part of IDL, which probably isn't any harder than learning the VTK API.

Have a look at the idldemo if you're still unsure. There are a few 3d isosurface and medical mri images there to play with. Have a look at David's website, http://dfanning.com/ , the IDL programs section has some

imaging examples.

Chris.