
Subject: Re: VTK + IDL

Posted by [Karl Schultz](#) on Wed, 25 Aug 2004 18:30:48 GMT

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"Hee Chun" <chun.42@osu.edu> wrote in message

news:da6f35c7.0408250733.1528c0d2@posting.google.com...

> Michael Wallace <mwallace.no.spam@no.spam.swri.edu.invalid> wrote in
message news:<10io1j5s450cf21@corp.supernews.com>...

>> It sounds from your description that you should just be able to use IDL

>> and not have to worry about OpenGL at all. When I said "IDL doesn't

>> have all of the graphics constructs" what I meant to say was doesn't

>> allow you direct access into the OpenGL API.

>

> Thanks Mike for your reply. I am using IDL and I know that IDL DOES

> have some graphics functionalities for medical image data sets. I just

> borrowed from your comment to explain why I need IDL and OpenGL API.

> If I misused it, sorry for that.

>

>> However, IDL does have a

>> lot of graphics for analysis work. I don't know what VTK is, but

>> medical images were one of the main things that IDL was developed for.

>> If all you're doing is graphics display of medical data sets, IDL should

>> more than cover you.

>

> VTK is the Visualization Tool Kit from [Http://www.kitware.com](http://www.kitware.com)

> Maybe I am a beginner for IDL's object graphics. I tried the following

> code but the image is not good enough for my application.

>

> file = Filepath('head.dat',Subdirectory=['examples',\$

> 'data'])

> volumeData = READ_BINARY(file, DATA_DIMS = [80, 100, 57])

> oVol =

Obj_new('IDLgrVolume',volumeData,/Zbuff,Hints=2,/No_copy,/Zero_opacity_skip)

> -- normalization --

> oModel = Obj_new('IDLgrModel')

> oView = obj_new('IDLgrView', viewplane_rect=[-1.,-1.,2.5,2.5], \$

> color=[128,128,128],ZClip=[2.0,-2.0], Eye=60.0,Projection=2)

>

> oModel ->Add, oVol;

> oView -> Add, oModel;

> oDrawWin -> Draw,oView;

>

> So, I come up with the idea calling VTK from IDL. What do I need to do

> more to display the image better? If you know who is using IDL's

> object a lot, please let me know. Thanks.

>

> HC

OK, now we're talking about volume rendering, which has little to do with OpenGL.

IDL uses an internal ray-casting algorithm to produce a 2D image (along with Z-buffer data) of the volume rendering and then draws the image. It doesn't use OpenGL for volume rendering, except to draw this 2D image to the screen. And OpenGL itself does not support volume rendering, except if you consider 3D texture mapping as such.

VTK has a lot of volume rendering capability and in fact, volume vis is a huge focus of VTK.

If you tell us more about *why* the IDL volume rendering is not good enough for your application, maybe we can be more helpful.

Karl
