
Subject: Re: How to change the 3D visual angel?
Posted by [David Fanning](#) on Sat, 05 Apr 2008 15:14:44 GMT
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FOX writes:

> I use IDLgrVolume to plot volume data
> but there is something wrong with the visual angel, no matter how i
> rotate the model, the angel it's not good

I realize English is not your first language, and I am not making fun of you at all, but "angel" throws the iTools into a whole new light for me, and explains a lot. :-)

You are undoubtable talking about an "angle". But I know as much about angles in iTools as I do about angels. Sorry.

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: How to change the 3D visual angel?
Posted by [fox](#) on Sat, 05 Apr 2008 16:14:58 GMT
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sorry about the mistake~~english is really a problem,but to find the chinese IDL resource even worse
i mean the visual angle. i'm not using iTools,just the IDLgrVolume object
i want to overlook the cube, but the view point always be the center of the view

my poor english stops me to explain it clear, in fact neither in chinese

so anyone can give me some examples on how to show a cube with axix
thanks

Subject: Re: How to change the 3D visual angel?
Posted by [d.poreh](#) on Sat, 05 Apr 2008 16:20:36 GMT
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On Apr 5, 6:14 pm, FOX <20thfox...@gmail.com> wrote:
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Also Axis *NOT* Axix

Subject: Re: How to change the 3D visual angel?
Posted by [David Fanning](#) on Sat, 05 Apr 2008 16:54:28 GMT
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FOX writes:

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Well, yes, object graphics can be pretty low-level and setting up the viewport and the rotation necessary to see something can be a problem. We have the same problem with surfaces, for example. Perhaps you can learn something about how it is done by examining the code in a program like Simple_Surface:

http://www.dfanning.com/programs/simple_surface.pro

There the surface rotations for the surface model look like this:

```
; Rotate the surface model to the standard surface view.  
thisModel->Rotate,[1,0,0], -90 ; To get the Z-axis vertical.
```

thisModel->Rotate,[0,1,0], 30 ; Rotate it slightly to the right.
thisModel->Rotate,[1,0,0], 30 ; Rotate it down slightly.

Note that the viewport has been previously set-up to put the center of rotation in the center of the window. If it is somewhere else, you will have to translate the object to the center, perform the rotation, and translate it back to where you want it.

Cheers,

David

--

David Fanning, Ph.D.
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Subject: Re: How to change the 3D visual angel?
Posted by [Magic.Zhou](#) on Sun, 06 Apr 2008 12:31:03 GMT
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> so anyone can give me some examples on how to show a cube with axis
> thanks

haha, me too. i am from shanghai? what about u?

Subject: Re: How to change the 3D visual angel?
Posted by [rtowler](#) on Mon, 07 Apr 2008 18:11:42 GMT
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On Apr 5, 7:53 am, FOX <20thfox...@gmail.com> wrote:
> I use IDLgrVolume to plot volume data
> but there is something wrong with the visual angel, no matter how i

- > rotate the model, the angle it's not good. i want to output the volume
- > as xvolume or ivolume's default visualization.
- > anything more than model rotate?

Yes, the dark angel of IDL object graphics is at work here ;)

This is a simple case of understanding OpenGL transformations which, because we expect things to move on the screen as they do in life, aren't intuitive. This is why I wrote an object graphics camera class which you should take a look at:

<http://www.acoustics.washington.edu/~towler/RHTgrCamera.html>

For simplicities sake, I recommend starting with camera__define.zip located at the bottom of the page. Using my camera class you'll be able to manipulate your volume more intuitively. If you wish to ultimately view the volume in iTools (I couldn't really tell from your email), you can modify the camera code to output the transformation matrix used to create the view you are interested in and then apply that to your model before passing it to the iTool.

-Rick

Subject: Re: How to change the 3D visual angle?
Posted by [fox](#) on Mon, 21 Apr 2008 09:27:45 GMT
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thank all you guys
really helps
i will try myself

ps, i'm from nanjing, pmo
