
Subject: Re: Stretching of image

Posted by [David Burridge](#) on Wed, 15 Jan 2003 16:59:41 GMT

[View Forum Message](#) <> [Reply to Message](#)

Hi,

Am I getting deja-vu here or what? Wasn't there something *very* similar to this posted recently? Anyhow...

"New2IDL" <biomedthesis2002@yahoo.com> wrote in message
news:162586e3.0301150823.4d98ab7@posting.google.com...

> Hi.

> i'm trying to generate 3D volume. I use the functions SHADE_VOLUME,
> POLYSHADE etc to display 3D image. I tried the trackball object to
> rotate the 3D object. When i used a cube, sphere or any 3D given
> example from IDL and use trackball on that image, the object rotates
> perfectly. When i try to use my 3D object that was created after
> processing of the data, the image stretches everytime i rotate it in
> different directions. the image i'm using is a 512x512x21. it
> stretches along the z-axis and i have no idea why it streches. Can
> anybody help me with this. Please...

>

> The code i wrote is like this:

>

> ##### MAIN CODE #####

> restore, filename = 'headimage1'

> image = bytscl(C1)

> images = image[*,*,*]

> images = images GE 30

> imsize = size(images)

>

> images = congrid(bytscl(images),512,512,512)

I think this is as far as we need to go. If you Congrid the data like this, you've created 512 samples in the Z direction where there used to be 21. This is why it stretches. You can either modify the offending Congrid, or modify the ZCOORD_CONV later on to compress the 256 back into the space taken up by the 21. I would probably attempt the former, as the size of the data is less.

Hope this helps,

Dave

--

David Burridge

Burrige Computing, 18 The Green South

Warborough, Oxon, OX10 7DN

England

Tel: +44 (0) 1865 858279, Email: davidb@burridgecomputing.co.uk

Outgoing mail is certified Virus Free.

Checked by AVG anti-virus system (<http://www.grisoft.com>).

Version: 6.0.404 / Virus Database: 228 - Release Date: 15/10/2002

Subject: Re: Stretching of image

Posted by [Rick Towler](#) on Wed, 15 Jan 2003 19:16:58 GMT

[View Forum Message](#) <> [Reply to Message](#)

At what point do things go wrong?

Are you confident your polygon object is correct? Use XOBJVIEW to view oModel1 right after you add oPolygon to it and again after you apply your coord conversions (XOBJVIEW, oModel1, /BLOCK). Since you can view other objects without distortion my guess is that your polygon object is incorrect.

It would be helpful if you posted a simple working example that demonstrates the problem using data available in the idl distribution.

-Rick

"New2IDL" wrote

> Hi.

> i'm trying to generate 3D volume. I use the functions SHADE_VOLUME,
> POLYSHADE etc to display 3D image. I tried the trackball object to
> rotate the 3D object. When i used a cube, sphere or any 3D given
> example from IDL and use trackball on that image, the object rotates
> perfectly. When i try to use my 3D object that was created after
> processing of the data, the image stretches everytime i rotate it in
> different directions. the image i'm using is a 512x512x21. it
> stretches along the z-axis and i have no idea why it streches. Can
> anybody help me with this. Please...

>

> The code i wrote is like this:

>

> ##### MAIN CODE #####

> restore, filename = 'headimage1'

> image = bytscl(C1)

> images = image[*,*,*]

> images = images GE 30

```

> imsize = size(images)
>
> images = congrid(bytescl(images),512,512,512)
> SHADE_VOLUME, images, 30, v, p, /LOW, /VERBOSE
>
> xdim = 512
> ydim = 512
> wBase = Widget_Base(/Column)
> wDraw = Widget_Draw(wBase, XSIZE = xdim, YSIZE = ydim, GRAPHICS_LEVEL
> = 2, /BUTTON_EVENTS, /MOTION_EVENTS, /EXPOSE_EVENTS, RETAIN = 0)
> Widget_Control, wBase, /Realize
> Widget_Control, wDraw, Get_Value = oWindow
> oPolygon = Obj_New('IDLgrPolygon', DATA = v, POLY = p, STYLE = 2, COLOR
> = [255,255,255])
> oTrackball = Obj_New('Trackball', [xdim/2, ydim/2], xdim/2)
> oView = Obj_New('IDLgrView', VIEWPLANE_RECT = [-1,-1,2,2], ZCLIP =
> [4,-4], COLOR = [0,0,0])
> oModel = Obj_New('IDLgrModel')
> oLight = Obj_New('IDLgrLight', LOCATION = [2,2,1], TYPE = 1)
> oModel -> Add, oLight
> oLight = Obj_New('IDLgrLight', TYPE = 0, INTENSITY = 0.5, COLOR =
> [255,255,255])
> oModel -> Add, oLight
> oModel1 = Obj_New('IDLgrModel')
> oModel1 -> Add, oPolygon
> Xmin = min(v[0,*])
> Xmax = max(v[0,*])
> Ymin = min(v[1,*])
> Ymax = max(v[1,*])
> Zmin = min(v[2,*])
> Zmax = max(v[2,*])
> xs = [(-Xmin)/(Xmax-Xmin), 1/(Xmax - Xmin)]
> ys = [(-Ymin)/(Ymax-Ymin), 1/(Ymax - Ymin)]
> zs = [(-Zmin)/(Zmax-Zmin), 1/(Zmax - Zmin)]
> ;print,Zmin, Zmax, 0.33/(Zmax-Zmin)
> ;zs = [0, 0.33/(Zmax - Zmin)]
> oPolygon -> SetProperty, XCOORD_CONV = xs, YCOORD_CONV = ys,
> ZCOORD_CONV = zs
> oModel -> Add, oModel1
> oView -> Add, oModel
> oWindow -> Draw, oView
>
> END
> #####
>
> -thanx.

```
