
Subject: Re: 2D and 3D filled objects.

Posted by [David Fanning](#) on Fri, 27 Dec 2002 00:00:54 GMT

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New2IDL (biomedthesis2002@yahoo.com) writes:

> I'm trying to draw a circle and fill the circle with value 255. I
> want to extend this to 3D to draw a sphere and fill the sphere with
> value 255. Can anybody tell me how to obtain this.

Here is an article on how to draw a circle in IDL:

http://www.dfanning.com/tips/make_circle.html

It will lead you to TVCIRCLE from the NASA IDL Astronomy web page, the best circle routine around, I think.

What are you planning to do with the sphere? Filling a sphere with the value 255 is an odd sort of request. At least I haven't run into the need for it in 15+ years of working with IDL. :-)

I suspect there might be a simpler way of visualizing whatever it is you are trying to visualize with a sphere than constructing it this way. Typically, one does an isocontour, or a polygon mesh, or something like that.

For example, here is one way to render a sphere:

```
Window, XSize=300, YSize=300
sphere = FltArr(20, 20, 20)
FOR x=0,19 DO FOR y=0,19 DO FOR z=0,19 DO $
  sphere(x, y, z) = SQRT((x-9.5)^2 + (y-9.5)^2 + (z-9.5)^2)
Shade_Volume, sphere, 8, vertices, polygons
Scale3, XRange=[0,20], YRange=[0,20], ZRange=[0,20]
image = PolyShade(vertices, polygons, /T3D)
TV, image
```

Cheers,

David

--

David W. Fanning, Ph.D.

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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Subject: Re: 2D and 3D filled objects.

Posted by [biomedthesis2002](#) on Fri, 27 Dec 2002 16:41:54 GMT

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I already tried to generate the sphere the same way but the problem is it has various densities. I want a sphere with one density and that density is White.

I've written my own code for 3D thinning. I'm not sure if the algorithm is right. I know what to expect when i thin a binary sphere. That's the reason for this question. To cross check that in 2D, i need a binary circle that is completely filled with each pixel value as 255.

Thanks.

David Fanning <david@dfanning.com> wrote in message news:<MPG.1875462552b5ecd6989a84@news.frii.com>...

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