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

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David W. Fanning, Ph.D. Fanning Software Consulting, Inc. Phone: 970-221-0438, E-mail: day

Phone: 970-221-0438, E-mail: david@dfanning.com

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>... > 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
```