
Subject: Re: IsoSurface

Posted by [David Fanning](#) on Thu, 10 Jun 2004 15:46:52 GMT

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Aleks writes:

> Previously I used MatLab to combine slices of data and construct 3D
> models. My advisor chose to switch to IDL because of its "powerfull"
> features. 81 came from the number of slices I have. I'm not really
> sure what you mean by range of my values?

When you use `Shade_Volume` you are trying to create a 3D contour of your data at some "value". If your data values range from 100 to 200 and you contour at 81, and look for the values "lower" than the contour value, you are not likely to see much in your plot. :-)

So, in the above example, if your data ranges in value from 100 to 200, setting a contour level of 150 might be reasonable. The contour level should be set based on the data values in the volume, not the number of frames in the volume.

One way to see what range of data values you have is to plot a histogram of the data values in the volume:

```
IDL> Plot, Histogram(vol)
```

You might see some likely looking peaks in the histogram. Just above or below, or perhaps right in the middle of a peak might be an appropriate place to choose a contouring value for a 3D contour.

For a quick test to see if your contouring value is "reasonable" you might pick something between the minimum and maximum of the data:

```
IDL> Print, Min(vol), Max(vol)
```

Cheers,

David

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David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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