
Subject: How do you color contour levels/ranges in a PLOT which uses the functions CONTOUR and SURFACE?

Posted by [Robert Lematta](#) on Mon, 05 Oct 1998 07:00:00 GMT

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To: The idl gods,

I am trying to fill in different contour levels of a 3D plot. I have 10 levels of contours, which are defined by using the following commands.

```
surfr
vals=[-200,-190, -180, -170,-160,-150,-140,-130,-120,-110,-100]
contour, Array1, /follow, levels=vals, /T3D, /overplot
surface, Array1, /noerase
```

Array1 is the 2 D array of data with values running between -200 and -100. What I would like to display is a 3D plot with the colors for each level (ex -200 to -190, -190 to -180, etc) as a distinct color filled in. the data is kind of like a topographical map with peaks and valleys. What I am trying to do is to shade a given "altitude range" with the same color.

Can anyone out there help me?

Regards,

robert
lematta@yahoo.com

Subject: Re: How do you color contour levels/ranges in a PLOT which uses the functions CONTOUR and SURFACE?

Posted by [Amit Ghosh](#) on Tue, 20 Oct 1998 07:00:00 GMT

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- > valleys. What I am trying to do is
- > to shade a given "altitude range" with the same color.

Robert, I think I know what you are trying to do: You want a shaded contour plot, so that a circular peak would appear as a 'bulls-eye', with sharp transitions between levels. One way to get this effect is create a 'quantized' dataset. So for instance you set all the values between -200 and -191 to one value (say -200), then you set all the values from -190 to -181 to another value (say -190) etc. You can then plot the image of that dataset with an appropriate colormap (using `bytescl` etc). You can even choose arbitrary colors for the levels by setting the 'value' for each level to be the byte value for the color you desire.

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