
Subject: Re: Surface Problem

Posted by [Chris\[1\]](#) on Tue, 08 Jun 2004 10:46:15 GMT

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Is your polar data regularly gridded? Then the easiest way we've found is to form 2 two dimensional arrays large enough to cover your eventual output plot at the resolution you want, as well as another - say D - that will have your final interpolated data. Then for one array -say R - set each value to the corresponding radius from the center; for the other -say Theta - set it to the corresponding angle. Use the where() function on the array of radii to get a list of where the radii are less than your maximum radius for your data. i.e

```
w = where(R lt your_radius)
```

Set D everywhere = to some minimum value.

Then you can interpolate D(w) at R(w) and Theta(w) using the interpol (or is it interpolate() ? I don't have IDL on this computer) function. You will have to add an extra row to your original data array to interpolate correctly between your highest angle, and 0.

Finally, take your output D, and congrid() it up to your final display size.

If your original data is irregularly spaced in (r, theta) then you can do something similar, but then the interpolation function needs the spacing information as well.

HTH

Chris

"Jeff Waksman" <jeffwax1@hotmail.com> wrote in message
news:74841395.0406070622.ff6ddca@posting.google.com...

> Hi, guys, I didn't get this answered and was hoping that maybe someone
> could help me with this problem. Any aid would really be helpful.

>

> -Jeff

>

>

>

> Hi, I have a huge amount of data that I'm working with and need to
> plot and was hoping that someone could help me with.

>

> The data has three coordinates - radius, polar angle, and time. I
> want to create a circular image and then to create an MPEG out of the
> different frames (imagine a moving satellite picture of the Earth...).

> I did this by using "POLAR_SURFACE" and interpolating between the

> data points. However, the problem is that I can't get a smooth outer
> circle. IDL is taking the points with the largest radius and
> connecting the dots to create the outline of my surface. Thus, I end
> up with jagged edges and a misshapen diagram. Does anyone know what I
> can do to make the interpolation spread throughout a larger circle
> that would encompass the entire previous shape? Any help would be
> greatly appreciated.
>
>
> Thanks,
>
> Jeff
