Subject: Re: 2D Plot in IDL with shading?
Posted by Ally on Tue, 22 Jun 2010 14:23:31 GMT
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On Jun 21, 4:16 pm, pp <pp.pente...@gmail.com> wrote:
> On Jun 21, 4:59 pm, Ally <ally.desh...@gmail.com> wrote:
>
>> I'm sorry, now I'm even more confused. I have my 3 data sets, which
>> are all arrays with one column and 5273670 rows. I'm trying to plot
>> them in this 3D graph as (x,y,z) points. I understand why you're
>> saying that I need to reform the response (hadn't thought about the
>> connectivity before) but don't understand the fastest-varying
>> dimension concept.
>
> You have 5273670 points for response, which are the product of some
> number of azimuths (I will call it n_az), by some number of elevations
> (I will call it n_el). It was written to the file as a 1D array, which
> can be done in one of two usual ways:
>
> 1) elevations varying fastest: responses for all elevations are given
> for the first azimuth, followed by the responses for all elevations of
> the next azimuth, and so on. In this case, you would reform it to
>
> response_2D=reform(response,n_el,n_az)
>
> 2) azimuths vary the fastest: responses for all azimuths are given for
> the first elevation, followed by the responses for all azimuths of the
> next elevation, and so on. In this case, the reform would be
>
> response_2D=reform(response,n_az,n_el)
>
>> I tried reform(response, 2, 5273670) and
>> reform(response, 5273670, 2) and got an error that said 'new
>> subscripts must not change the number elements in response' each
>> time. What dimension am I trying to add to reform exactly?
>
> Reform() only changes the dimensions of something, it preserves the
> number of elements. So the products of all dimensions you give to
> reform() must be the same as the number of elements of the array you
> are reforming. You were trying to make an array with two columns and
> 5273670 rows (and 5273670 columns and 2 rows), which is not the shape
> your response should have, nor is the same number of elements. The
> shape should be either (n_az,n_el), or (n_el,n_az), depending on how
> it was written to that file.
>
> If you inspect the values of the azimuths and elevations you can find
> out which is the order. If the first few (n_el) elements of azimuth
> are the same, then then fastest varying dimension is the elevation,

> and response should be reformed to (n_el,n_az).

My data isn't organized that way. It's real time data from a balloon flight so the azimuth and elevation of the sun are constantly changing. Does this mean they are not regular and I should let the gridding wizard interpolate them?
