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Subject: Re: Skymap and Array Problems  
Posted by [wissels](#) on Wed, 09 Jul 2003 14:28:42 GMT  
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>> Furthermore, the galactic coordinates do not come out in sequential  
>> order, so I need to sort them (along with their referenced data  
>> points).  
>  
> This might be. Could you please try to explain the geometry of your grid in  
> galactic coordinates. You start out with a rectangular grid in celestial  
> coordinates, right? I.e. one that can be described by 1D x & y arrays (not  
> necessarily evenly spaced). Is the grid in galactic coordinates a distorted  
> rectangular grid? Or (as I think you are implying) something more general.

The grid in galactic coordinates is not distorted. The transformation involves rotation (the galactic plane is 63deg from the celestial plane) and translation from the earth centered vertex to vertex at the center of the galaxy.

I must have made the problem sound worse than it is. I'm just frustrated, because of my lack of understanding in idl.

The main problem is that after conversion the coordinates are not chronological. Meaning that instead of

| Long | Lat | .....i get..... | Long | Lat |
|------|-----|-----------------|------|-----|
| -182 | -89 |                 | 12   | 23  |
| -155 | -45 |                 | -155 | -45 |
| 12   | 23  |                 | -189 | -89 |
| 35   | 78  |                 | 35   | 78  |

As far as I can tell IDLgrCONTOUR (or CONTOUR for that matter) will not let me plot well if the coordinates are not sorted. So I have to sort all three arrays (the latitude set, the longitude set and the data set) in order to map correctly. I hope that makes my problem a little clearer. I will try looking at IDLgrPolygon.

Thanks!  
Stephanie

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