Subject: Re: map_image and latmin/latmax, lonmin/lonmax - edges or centres?
Posted by Andy Sayer on Thu, 26 Sep 2013 16:18:08 GMT
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Hi David,

Almost, but not quite. Now, all the grid cells are the same size. But, it only puts 4x4 cells in there (instead of 5x5). It looks like the left column and bottom row are being cut off the image correctly.

Andy

On Thursday, September 26, 2013 10:39:29 AM UTC-4, David Fanning wrote:
> AMS writes:
>
>
>
>> Ok, here is some code which will reproduce the problem (IDL 7.1.1). This should draw an image in a 5x5 degree box from 47-52 N, 115-110 W. It puts the image in the right place, but the edge columns and rows are chopped in half in size (they should all be the same size). So you can see that this means all the points are offset from where they really should be. Does anyone know what is happening here?
>
>
>
> My guess is this is just an artifact of using the Map_Set way of doing
>
> things, which is very, very old and not of professional grade in terms
>
> of map projection software. Using the Map_Proj_*** routines, however,
>
> does result in what I think you expect. I added this code to the end
>
> of yours to give you the same perspective.
>
>
>
>   mapStruct = Map_Proj_Init(117,Limit=[45,-118,55,-108], $
>
>   center_lon=-112.5)
>
>   cola1 = Map_Proj_Image(scaled_data, [-115, 47, -110, 52], $
>
>   Dimensions=[xsize, ysize], Map_Struct=mapStruct)
>
>   window, 1
>
>   map_set,latdel=1,londel=1,limit=[45,-118,55,-108],/noborder, $
>

> xmargin=[2,2],ymargin=[2,2]
>
> tv, cola1, startx,starty,xsize=xsize,ysize=ysize
>
>
>
> Of course, you have to get your head around the LIMIT being expressed in
>
> a different order in the Map_Proj_Init and Map_Proj_Image routines, but
>
> once you are burned 8-10 times it becomes second nature to you. :-)
>
>
>
> I would encourage everyone to use the Map_Proj_**** routines for map
>
> projection work. They are old, but at least professional quality. Of
>
> course, they are hard to work with, which is why I generally work with
>
> the Coyote Library map projection routines instead, which are wrappers
>
> for the Map_Proj_*** routines and make this kind of thing much easier.
>
>
>
> Cheers,
>
>
>
> David
>
>
>
> --
>
> David Fanning, Ph.D.
>
> Fanning Software Consulting, Inc.
>
> Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
>
> Sepore ma de ni thue. ("Perhaps thou speakest truth.")