Subject: Re: map_set - 8-element limit
Posted by davidf on Tue, 28 Jul 1998 07:00:00 GMT
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William Connelly (wmc@bas.ac.uk) writes:

> I'm having trouble (idl 5.1; alpha) with map_set limits for 8-element
> vectors.
>
> map_set,lim=[-65,-180, -65,-90, -65,0, -65,90],/grid,/cont,/iso,/ster,-90
>
> ought to work (all pts along 65 S, regularly spaced in longitude)
> since its a perfectly good square in physical space coordinates.

I'm confused. How can points that line along a line on a map surface be a square in physical space coordinates? At least if we mean by "physical space coordinates" a portion of the sphere's surface.

The LIMIT keyword is suppose to delineate a portion of the map surface to display, not an oblique slice through a 3D sphere.

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting
E-Mail: davidf@dfanning.com
Phone: 970-221-0438
Coyote's Guide to IDL Programming: http://www.dfanning.com/

Subject: Re: map_set - 8-element limit
Posted by Harald Frey on Wed, 29 Jul 1998 07:00:00 GMT
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wmc@bas.ac.uk wrote:

> Hello group...
>
> I'm having trouble (idl 5.1; alpha) with map_set limits for 8-element
> vectors.
>
> map_set,lim=[-65,-180, -65,-90, -65,0, -65,90],/grid,/cont,/iso,/ster,-90
>

> ought to work (all pts along 65 S, regularly spaced in longitude)
> since its a perfectly good square in physical space coordinates.
>
> But it doesn't - I get just a single horizontal line and a divide-by-zero.

For this specific simple problem you should use a 4-elements vector instead
of the 8-elements. So try

map_set,lim=[-65,-180, -65,180],/grid,/cont,/iso,/ster,-90

and this gives you probably what you want.

Harald Frey

Subject: Re: map_set - 8-element limit
Posted by wmc on Wed, 29 Jul 1998 07:00:00 GMT
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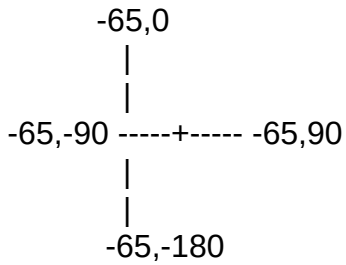
1027cc2b682ba60989819@news.frii.com, davidf@dfanning.com (David Fanning) writes:
> William Connelly (wmc@bas.ac.uk) writes:

>> map_set,lim=[-65,-180, -65,-90, -65,0, -65,90],/grid,/cont,/iso,/ster,-90
>>
>> ought to work (all pts along 65 S, regularly spaced in longitude)
>> since its a perfectly good square in physical space coordinates.

> I'm confused. How can points that line along a line on a map
> surface be a square in physical space coordinates?

I've set /ster, so I should be getting a polar stereographic projection.
Thus the points are:



Of course, if you think about the points in a lat-lon projection, then they are
in a straight line.

- William

William M Connolley | wmc@bas.ac.uk | http://www.nbs.ac.uk/public/icd/wmc/
Climate Modeller, British Antarctic Survey | Disclaimer: I speak for myself

Subject: Re: map_set - 8-element limit
Posted by wmc on Thu, 30 Jul 1998 07:00:00 GMT
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6E69DBEB@ssl.berkeley.edu, Harald Frey <hfrey@ssl.berkeley.edu> writes:
> wmc@bas.ac.uk wrote:
>> map_set,lim=[-65,-180, -65,-90, -65,0, -65,90],/grid,/cont,/iso,/ster,-90
>>
>> ought to work (all pts along 65 S, regularly spaced in longitude)
>> since its a perfectly good square in physical space coordinates.
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>> But it doesn't - I get just a single horizontal line and a divide-by-zero.

> For this specific simple problem you should use a 4-elements vector instead
> of the 8-elements. So try
>
> map_set,lim=[-65,-180, -65,180],/grid,/cont,/iso,/ster,-90

What I want to do is to use the 8-element form, and I want it to work whether the pole is inside the box or not.

The example I've given above can be done other ways. Sure. But *it ought to work as I've given it*. It doesn't. Why not?

Does anyone out there have experience of using the 8-element form, preferrably with a /ster projection?

- William

William M Connolley | wmc@bas.ac.uk | http://www.nbs.ac.uk/public/icd/wmc/
Climate Modeller, British Antarctic Survey | Disclaimer: I speak for myself