Subject: Stacking Map Projections for 3D depiction
Posted by greer.katelynn on Wed, 09 Sep 2009 20:42:24 GMT
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I have a series of stereographic SABER temperature plots (so 2D) on different pressure surfaces and want to present them in a way such that the vertical relationships between two different surfaces can been seen. Up until now, I have been generating the pressure surfaces (or as I call them slices) in IDL and then manipulating them individually in Adobe Illustrator by using some shear commands that make the slices appear that they are hovering over each other (like a deck of cards with an inch of air between each card). This is time consuming (especially for many such plots, not to mention being a rather inelegant solution) and I have been trying to recreate the 3D stacked map projections using IDL. I have looked on several forums and on google for potential solutions in map projections and 3D plotting, but seem unable to find what I need (I don't even know if what I'm doing has a proper name). Do you have any ideas or solutions for presenting data in this way?

Any help/ideas are greatly appreciated.

Subject: Re: Stacking Map Projections for 3D depiction
Posted by penteado on Thu, 10 Sep 2009 16:40:31 GMT
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On Sep 10, 12:00 pm, Katelynn <greer.katel...@gmail.com> wrote:
> On Sep 9, 2:53 pm, pp <pp.pente...@gmail.com> wrote:
>
>> Are the slices images or plots? If plots, are they contour plots? What
>> are the approximate number of slices and their dimensions?
>
> They are colored contour plots that I've put on a stereographic map
> projection. In terms of slices, right now I'm just dealing with two
> slices, but might add more depending on what I am trying to show. I
> figure that once I've got two slices figured out, it shouldn't be that
> difficult for me to add more. In terms of dimensions, are you asking
> about the data limits(lat=[40 90], lon [-180 180]), the number of
> pixels or?

I was just trying to get a better picture of what you are looking for.
Then use a series of calls to icontour, similar to what I guessed above, each one with a different zvalue. The amount to separate (the distance in zvalue) will depend on their dimensions and the angle you want to see the stack, so if you will have to experiment with it.