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Subject: Re: Procedure FILLCONTOUR

Posted by [bowman](#) on Thu, 20 Jan 1994 15:12:58 GMT

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In article <CJw4D6.17EF@yuma.ACNS.ColoState.EDU>, scott@abyss.ATMOS.ColoState.Edu (Scott Denning) wrote:

>  
> Has anybody gotten good results using FILLCONTOUR or CONTOUR, /FILL  
> in IDL?  
>  
> I am trying to make maps of the world with color-filled contours of data  
> overlayed on them. There are missing values that need to be masked out.  
> Sounds simple enough, eh?  
>  
> The problem is that both routines leave large areas of "background" color  
> unfilled wherever contours are "open" to the edge of the plot. This occurs  
> even when /CLOSE is specified as a keyword. These areas have many  
> different ranges of values, but are all colored as if they have the same  
> value (very misleading to readers).  
>  
> Also, the handling of missing values by "MAX\_VALUE" appears not to work  
> properly, and the contours are \_very\_ rough (as in not smoothed),  
> consisting of just a handful of line segments rather than hundreds as I  
> expected. MIN\_CURVE\_SURF no longer works to fix this.

There was discussion of this some time back. The /FILL option just doesn't work very well in a number of cases. There are/were some bugs also, such as not filling below the lowest contour. The biggest problem for me is that /FILL won't work at all if there are missing data. This makes it pretty well useless for my purposes. I can send you a hacked version of map\_image that handles missing data by not trying to interpolate at the edges of gaps. You can overlay contours on this using any map projection (although I haven't tested them all). It works best with smooth color maps, though. It is impossible to get the mapped image and contours to agree exactly, and the contours won't fall exactly on the boundaries between two colors when using a stepped contour map (to try to simulate filled contours).

I know a lot of people who would like a filled contour routine that is more general. I also think the MAX\_VALUE keyword is an awkward way to do missing values, and would prefer to see a MISSING\_VALUE keyword (in a lot of routines).

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