Subject: "4D" Plots
Posted by Phillip Bitzer on Wed, 07 Mar 2007 19:45:49 GMT
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Hello all-

I can't believe this question hasn't been answered yet, but I can't seem to find it anywhere. Maybe I just missed it...

I have 2 data sets, one containing x,y,z points and the other containing some value (say intensity) for each of those spatial points. I want to plot the intensity at each x,y,z point.

The long way of doing this is to simply loop over the spatial array and pull the intensity out for each point. This is dreadfully slow. Is there a better way that you are aware of?

Maybe some sample code will help clear up what I'm saying:

```
;this just gets the array from a data set
NCDF_VARGET, ID, 0, HM            ;size = 301,301,33
NCDF_VARGET, ID, 2, LONx          ;size = 301
NCDF_VARGET, ID, 3, LATy          ;size=301
NCDF_VARGET, ID, 4, z             ;size=33

;Not sure how to do this w/o using a for loop . . .
FOR i=0, 300 DO BEGIN
 FOR j=0,300 DO BEGIN
  FOR k=0, 32 DO BEGIN
   IF hm[i,j,k] EQ -32768 THEN sym=0 ELSE
sym=FIX(hm[i,j,k])            ;gets rid of bad data
   tempX=FLTARR(1) & tempX[0] = lonx[i]
   tempY=FLTARR(1) & tempY[0] = laty[j]
   tempZ=FLTARR(1) & tempZ[0] = z[k]
   plots, tempX,tempY,tempZ,/T3D,psym=sym,continue= 0
  ENDFOR
 ENDFOR
ENDFOR
```