Subject: contour plots on walls of a cube
Posted by eddie haskell on Thu, 11 Nov 1999 08:00:00 GMT
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Hello all,

I have what feels like a simple problem but I haven't been able to tweak the right strings yet.

I have a 3-D data set and am trying to visualise it by placing contour plots on the back three walls of a cube. The problem is that I can not get one of the contour plots to properly fill the wall without manually adjusting the position. In the example code that follows I always end up with an empty space down the left side of the plot on the back left wall. I can get it to fit by setting the x1 value in the contour call to 0.18 by hand but that just doesn't seem IDL-correct and I would have to manually determine new positions everytime I moved the cube on the page.

Am I missing something obvious, is there a subtle trick that I either haven't learned or have displaced from memory, or is there a completely different way of doing what I want? Thanks for any and all suggestions.

Cheers,
eddie

(IDL 5.1 on Solaris and IDL 4.01 on Win95)

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;---------------------------------

dat = randomu(seed,11,11)

x1 = 0.2     ;position coordinates
x2 = 0.8
y1 = 0.2
y2 = 0.8
z1 = 0.0
z2 = 1.0

surface, dat, /nodat, xr=[0,10], yr=[0,10], zr=[0,10], $
  xs=1, ys=1, zs=1, pos=[x1,y1,x2,y2,z1,z2], /save

plots,[x1,x2,x2],[y2,y2,y1],[z1,z1,z1],/nor,/t3d

;;;;;;back left   This is the problem.
t3d,/yz
contour, dat, /fill, nlev=10, /noer, /t3d, zval=y2, xr=[0,10], $
  yr=[0,10], xs=5, ys=5, pos=[x1,z1,x2,z2,z1,z2]
```

```
;-------------------------------------
;the following do fit properly for me, although I get the front
;    corner cut out of the contour on the 'floor'

;;;;;;back right
t3d,/xz
contour, dat, /fill, nlev=10, /noer, /t3d, zval=x2, xr=[0,10], $
  yr=[0,10], xs=5, ys=5, pos=[y1,z1,y2,z2,z1,z2]

;;;;;;floor
t3d,/xz
t3d,/yz
contour, dat, /fill, nlev=10, /noer, /t3d, zval=z1, xr=[0,10], $
  yr=[0,10], xs=5, ys=5, pos=[x1,y1,x2,y2,z1,z2]

;-------------------------------------
```


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