
Subject: trajectory plot behind sphere

Posted by [Ralf Schaa](#) on Thu, 17 Feb 2005 14:41:34 GMT

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Hi folks,

I am plotting a trajectory of a spacecraft orbit which is partially going behind a sphere (the planet). This part, which is actually behind the sphere is drawn right in front of the plot, but I like to have this part of the trajectory invisible.
How can this be done?

Thanks already

-Ralf

my piece of code:

```
; set up 3d
Xcnt = N_Elements(X1)
Ycnt = N_Elements(X2)
Zcnt = N_Elements(X3)
Surface, FltArr(Xcnt,Xcnt), X1, X2, $
  Xrange=[-5,5], Yrange=[-5,5], ZRange=[-5,5], $
  XStyle=4, YStyle=4, ZStyle=4, TICKLEN=1, /SAVE, /NODATA

; the sphere
sphere = fltarr(20,20,20)
for x=0,19 do for y=0,19 do for $
  z=0,19 do sphere[x,y,z]=sqrt((x-10)^2 + (y-10)^2 + (z-10)^2)

shade_volume, sphere, 8, v, p
v=0.1d*(v-10)
image = polyshade(v, p, /t3d)
tv,image

; draw trajectory
Plots, X1, X2, X3, color=8, /T3D

; axis through midpoint
AXIS, 0,0,0, /XAxis, /T3D, CharSize=2.5, color=3, xtickformat='(i8)'
AXIS, 0,0,0, /YAxis, /T3D, CharSize=2.5, color=3, ytickformat='(i8)'
AXIS, 0,0,0, /ZAxis, /T3D, CharSize=2.5, color=3, ztickformat='(i8)'
```
