Subject: Spherical surface plot
Posted by Mrunmayee on Sat, 02 May 2009 07:51:39 GMT
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Hello,

I have been trying to create a spherical surface plot and have partially succeeded. Here is what I did to create a surface:

```
theta3 = findgen(361)/2. * !pi/180.      ; 0<= theta <= !pi
phi3 = findgen(361) * !pi/180.           ; 0<= phi <= 2*!pi
x3 = sin(theta3) # cos(phi3)
y3 = sin(theta3) # sin(phi3)
sph = sqrt( (1. - x3^2 - y3^2) > 0.)     ; This is to avoid
"floating illegal operand" error.
sph1 = sph                               ; Just for comparison
with sph, to be modified as follows
sph2 = sph[181:360,*]                    ; Array containing
elements for !pi/2 < theta <= !pi i.e. southern hemisphere
sph1[181:360,*] = -sph2                  ; Since sqrt will just take
+ve root, this inverts and creates southern hemisphere.

Success: fsc_surface, sph1, x3, y3   ; Glorious spherical surface
         surface, sph1, x3, y3       ; Rather pathetic
rendering of surface but still a spherical surface
Failure: shade_surf, sph1, x3, y3    ; Nothing viewd. NOTHING AT
ALL. Whether device, decomposed=0/1 doesn't matter.
```

Anyone knows what's happening?

Thanks,
Gauri.