Subject: summation and 3d plot
Posted by Nicki on Tue, 27 Oct 2009 08:19:14 GMT
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Hey!
I have two problems... First of all I need to sum up something. it should be pretty easy but i just get really confused with my arrays.
first i have the following:

```
nx=findgen(64.)
ny=findgen(64.)
for i=0,63 do begin
for j=0,63 do begin
x0=(30./32.*(0.5+nx[i]))-30.
y0=(30./32.*(0.5+ny[j]))-30.
.....
N=findgen(10.)
r0=sqrt(x0^2+y0^2)
if (r0 gt 30.) then S=0 $   ; as it's an area of an circle with radius
30 (but not important for my problem)
else begin
for k=0,9 do begin
phi=N[k]*36*!pi/180
x=abs(x0*cos(phi)+y0*sin(phi))
y=-x0*sin(phi)+y0*cos(phi)
h=50.-y
deffs=sqrt(d^2+2/mu*tan(a/2*!pi/180))
S=deffs^2*(sin(atan(x/(h))))^3/(4*h)^2*100
deffr=d+alog(2)/mu*tan(a/2*!pi/180)
R=sqrt((h/f*ri)^2+(deffr*(h+f)/f)^2)
endfor
endelse
endfor
endfor
end
```

So what i wanna do now is summing up all "S" over k like "stot=s[k=0]+s [k=1]+....+s[k=9]" and then i want to have a 3 D plot of x0, y0 and stot (however i have no idea how to do that either...).
i know that a summation is usually done with "total(s)" but i don't know how to tell idl that it should be a summation over k. And i know that there are different ways how to do the 3D plot, but i don't really get the commands...
i actually only want to have a 3D surface plot...

Can somebody please help me out?

Cheers,
Nicki