
Subject: Re: I need a bit of help....Convol and functions
Posted by D.Kochman@gmail.com on Tue, 03 Oct 2006 20:42:39 GMT
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Hey you guys, once again thanks for the help. I'm still having fun learning IDL. ;)

So heres my next problem is finding out how this was implemented so I can replicate the procedure in order to do my own convolution. Pretty much what this following function is is a multiple convolution. It inputs a system response file (confun) which is 1024 data points.

```
FUNCTION func, P, X=x, Y=y, ERR=err, CONFUN=confun, $  
    funcvals=f, binsizefactor=bsf  
  
fshift=floor(-P(4)/bsf)  
rshift=-P(4)/bsf-fshift  
fconfun=shift(confun,-fshift)  
sconfun=(1-rshift)*fconfun+rshift*SHIFT(fconfun,-1)  
sumex=P(0)*exp( -X / P(1) )+P(2)*exp( -X / P(3) )+P(7)*exp( -X / P(8) )  
    blank=dblarr(1024)  
    consum = convol([blank,sumex],sconfun,total(sconfun),CENTER=0)  
    consumex=consum[1024:]*  
scatter= P(6)*sconfun  
f=P(5)+consumex+scatter  
err=sqrt(f)  
return,(y-f)/(err)  
end
```

So my big question is what is going on in convol? If I'm guessing correctly it seems like this is creating an array [blank,sumex] in essence to force an array upon sumex - but its a function. Are specific data points being used in sumex (ie x=0->1024)? I thought convol only took two parameters, which would mean sconfun would be the kernel, but I can't see that thats an array either? What is then the purpose of total(sconfun)?

I've managed to figure out just about everything else in this program from the creation of the datastructures, and the widgets and so on. That stuff is easy - and easily changable. I'm kind of lost with this one.

-Dave
