
Subject: function of two variables

Posted by [brooker](#) on Thu, 17 Mar 1994 20:55:51 GMT

[View Forum Message](#) <> [Reply to Message](#)

Hello from Canada!!

I have the following IDL question:

Assume I have the functions $Y=2.*X + 3.$ and I want to plot Y vs X over the range [0,10]

I could code this as

```
X=findgen(101)/100.*10.  
Y=2.*X + 3.  
plot,x,y
```

Very nice!! Only array operations. NO LOOPING!!!!!! Very FAST!!!!!!

But what if now I had $Z=2.*X + 3.*Y$ and I want to plot Z as X and Y both range from 0 to 10. A way to code this is

```
X=findgen(101)/100.*10.  
Y=X  
num_y=n_elements(Y)  
num_x=n_elements(X)  
z=fltarr(num_x,num_y)  
for j=0,numy-1 do begin  
    z(*,j)=2.*X + 3.*Y(j)  
endfor  
surface,Z,X,Y
```

Very inefficient because of the loop!! Very slow!!

Is there anyway to do this more efficiently?

Thanks,

Peter Brooker

brooker@toka.ireq-ccfm.hydro.qc.ca
