Subject: IDL Array Question
Posted by oh_wilkes on Tue, 11 Jun 2013 20:38:28 GMT
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Hello,

My adviser is out of town for the next week so hopefully someone here can help me!

I am supposed to use two FOR loops to calculate two functions then map the function of the first loop to the function of the second. I have accomplished this, getting a scatter plot of approximately 1440 points, which spaced themselves out into bins due to the nature of the functions. For reference, on the x-axis I have arrdis and on the y-axis I have what I call arrdin. Now I need to compile all of the arrdis values matched to their respective arrdin values into an array. However, when I print the array, I am only printing one row at a time. That is, when the array (arrdata=[arrdis,arrdin]) prints, it overwrites the previous values.

Is there a way to compile all of these into one array so that I can bin them and find averages for each bin?

Here is an outline of my program, if helpful:

```
pro calcplot

   scans=get_scan_numbers(numscans)

     arrlon=make_array(numscans,/float,value=0)
     arrlat=make_array(numscans,/float,value=0)
     arrins=make_array(numscans,/float,value=0)

     arrdis=make_array(numscans,/float,value=0)
     arrdin=make_array(numscans,/float,value=0)

     arrdlon=make_array(numscans,/float,value=0)
     arrdlat=make_array(numscans,/float,value=0)
     arrdins=make_array(numscans,/float,value=0)

     arrdata=make_array(numscans,/float,value=0)

     window,0
      !x.title='log(d)'
      !y.title='log(D)'

 for i=0,119 do begin

  for j=1,120 do begin

    getrec,i
[a bunch of math, irrelevant to find loni, lati, and insi for a given i]
```

```
    arrlon[i]=loni
    arrlat[i]=lati
    arrins[i]=insi

   getrec,j
[the same equations as above with different variables to find lonj,latj, and insj for a given j]

    arrlon[j]=lonj
    arrlat[j]=latj
    arrins[j]=insj

    dlon=arrlon[i]-arrlon[j]
    dlat=arrlat[i]-arrlat[j]
    dins=arrins[i]-arrins[j]

    dis=[dlon^2+dlat^2]^(0.5)
    din=[dins^2]^(0.5)

    logdis=alog10(dis)
    logdin=alog10(din)

    arrdis=logdis
    arrdin=logdin
    arrdata=[arrdis,arrdin]

    print,arrdata

    plot,arrdis,arrdin,/noerase,psym=3, $
            xrange=[-1.50,0.50],yrange=[0.0,1.4]

  endfor

 endfor

end
```

I just started learning IDL last week, so please forgive me if this makes little sense.