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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.

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