Subject: Really BASIC idl programming question
Posted by u2s5thmember on Sat, 24 Jan 2004 02:20:32 GMT
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Hi everybody,

I feel really dumb asking this question, but I haven't been able to figure out a better way to write this code... and (it will become clear) programming obviously isn't my forte.

I have several arrays of data of the same length:
num=[data between 0 and 1 say]
temp=[data between 195 and 205 K]
and so on...

I would like to plot a histogram of % data for three different temperature ranges

So what this means is, I pick all the data
1) where the "num" array is between 0 and 1, and "temp" is between 195-200.
2) where "numb" is between 0.1 and 1, and "temp" is between 195 and 200.
3) "num": 0.2 through 1 and "temp": 195 to 200
4) .... and so on...

repeat this for every 5 degree increment for temperature.

Basically, I THINK I would like to create an array made up of the output of a bunch of where statements.

This lame code is what I have written, could you please help me write this in a better/faster/not so emabarassing way?

plot, x_values, y_values, /nodata, etc, etc....

```
for k=0, 2 do begin
  a=where((num gt 0.0) and (temp GE (195+5*k)) AND (temp LT
(200+5*k)))
  b=where((num gt 0.1) and (temp GE (195+5*k)) AND (temp LT
(200+5*k)))
  c=where((num gt 0.2) and (temp GE (195+5*k)) AND (temp LT
(200+5*k)))
  [.......]

  if (n_elements(a) GT 1) then a=n_elements(a) else a=0
  if (n_elements(b) GT 1) then b=n_elements(b) else b=0
  if (n_elements(c) GT 1) then c=n_elements(c) else c=0
```

```
  [.......]

  new_array=[a,b,c,d,e,f,g,h,i,j]
  max_value=float(a)
  oplot, x_values, (new_array/max_value)*100, PSYM=10

endfor
```

I know I should be using multidimensional arrays, but I always get stuck trying to define "new_array" without using all these repeated where statements.

Thanks for suffering through this! I would Dearly appreciate ANY suggestions (other than quit programming!) ;)

thanks again!
