Subject: Re: Easy question on for loops and if statements
Posted by Michael Galloy on Thu, 16 Jul 2015 18:24:08 GMT
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On 7/16/15 11:15 AM, larosaant94@gmail.com wrote:
> I am plotting the magnetic field longitude and using the ATAN
> function to do so. Though the ATAN function gives a result
> between the range of -180 to +180. I wish to use a range of
> 0 to 360.
>
> A look at the code:
>
> Bx = data(10,*)
> By = data(11,*)
>
> longitude = 180/!Pi* atan(By, Bx)
>
> FOR j=0,N_Elements(longitude)-1 DO BEGIN
> IF longitude[j] lt 0 THEN BEGIN
> longitude = 360 + longitude
> ELSE
> longitude = longitude
> ENDFOR
>
> ;Does the actual plotting----------
>
> plot, time, longitude, yrange=[0, 360], yticks=4, yminor=6, $
> ytitle='Lambda', position=[0.1, 0.24, 0.95, 0.31], xtickname=blnklb
> plots, [min(time), max(time)], 180.0*[1,1], linestyle=2
>
>
>
> I want any number less than 0 to get 360 added to it and then once
> this is completed plot all the data points including the ones above 0!

I don't see a specific question here. I do notice you had some oddities in your FOR loop, so I corrected:

```
for j = 0L, n_elements(longitude) - 1L do begin
  if (longitude[j] lt 0) then begin
    longitude[j] = 360 + longitude[j]
  endif
endfor
```

But really, I would just do the following:

```
longitude += (longitude lt 0) * 360
```

Mike
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