
Subject: FOR loop question

Posted by [lbryan](#) on Mon, 13 Jul 1998 07:00:00 GMT

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Hello all,

I'm developing a developing a bottom / target detector for a ocean LIDAR system and found a puzzle with a FOR loop that I don't understand. Could someone tell me why this code runs:

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```
range = 360
x = findgen(range)*!pi/180
y = sin(x) ;simulates my real data
minarray = where(y eq max(y))
maxpos = minarray(0)
window,0
plot,x,y

for rg = 0,range - 2 do begin
  if (rg gt 0) then oplot,x,y(0:rg), psym = 2
  if (y(rg) gt 0 and y(rg+1) lt 0) then begin $
    bottdepth = float(x(rg))+!pi/180*y(rg)/(y(rg+1) + y(rg))
    print,rg
  rg = range ;end loop through range
  endif else bottdepth = 0
endfor
```

```
print,bottdepth
end
```

=====

and this code doesn't:

=====

```
range = 360
x = findgen(range)*!pi/180
y = sin(x)
minarray = where(y eq max(y))
maxpos = minarray(0)
window,0
plot,x,y

for rg = maxpos,range - 2 do begin ;<===only difference is here
  if (rg gt 0) then oplot,x,y(0:rg), psym = 2
  if (y(rg) gt 0 and y(rg+1) lt 0) then begin $
    bottdepth = float(x(rg))+!pi/180*y(rg)/(y(rg+1) + y(rg))
    print,rg
  rg = range ;end loop through range
  endif else bottdepth = 0
endfor
```

```
print,bottdepth  
end
```

=====

I know changing the index value within a loop isn't slick programming,
but this is how I happened to write it and now I'm curious why one
works and one doesn't.

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