Subject: help with - count in where() function
Posted by g.nacarts on Thu, 30 Apr 2015 17:32:31 GMT
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Hi

I wrote a simple example of my code to understand the behaviour of count in the where() function but I still don't understand something.

My example:

```
array = [[-1,2,3,4,5],[6,-7,8,9,10]]
mask =bytarr(5,5)
for i=0L,4 do begin
  for j=0L, 4 do begin
    IF (TOTAL(ARRAY GT 5.)+ TOTAL(Array LT 0.)) EQ 0 THEN mask[i,j]=1
  endfor
endfor

ind = where(mask EQ 1,count)
print, count
IDL> 0


print, total(array GT 5.)
> IDL 4.00000
print,  total(array LT 0.)
> IDL 2.00000
```

I was expecting the answers in the two last prints. I don't understand why when I print out the count it's zero. Can anyone help?

Actually I was expecting to be 4 because there are 2 negatives and 4 greater than 5 so (2+4=6, thus 10-6=4).

Thanks

Subject: Re: help with - count in where() function
Posted by Paul Van Delst[1] on Thu, 30 Apr 2015 17:58:12 GMT
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On 04/30/15 13:32, g.nacarts@gmail.com wrote:
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>
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>   for j=0L, 4 do begin
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>   endfor
> endfor
>
> ind = where(mask EQ 1,count)
> print, count
> IDL> 0
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> print, total(array GT 5.)
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> Actually I was expecting to be 4 because there are 2 negatives and 4
greater than 5 so (2+4=6, thus 10-6=4).

Umm....but you're asking to set the mask element if 4+2 = 0.

Last time I checked, 4+2 never equals 0 (in this universe at least) so
no mask elements will ever be set to 1.

Maybe your TOTAL() commands require some additional info re the i or j
indices?

Or am I being brain dead here?

cheers,

paulv

Subject: Re: help with - count in where() function
Posted by Phillip Bitzer on Fri, 01 May 2015 14:33:45 GMT
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On Thursday, April 30, 2015 at 12:32:32 PM UTC-5, g.na...@gmail.com wrote:
> Hi
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>   for j=0L, 4 do begin
>   IF (TOTAL(ARRAY GT 5.)+ TOTAL(Array LT 0.)) EQ 0 THEN mask[i,j]=1
>   endfor
> endfor
>
> ind = where(mask EQ 1,count)

>
> I was expecting the answers in the two last prints. I don't understand why when I print out the
count it's zero.

Why do expect that to be the answer? Look at your loop again:

> for i=0L,4 do begin
>   for j=0L, 4 do begin
>   IF (TOTAL(ARRAY GT 5.)+ TOTAL(Array LT 0.)) EQ 0 THEN mask[i,j]=1
>   endfor
> endfor

When, i=0, j=0, the total of `array GT 5` is 4 and the total of `array LT 0` is two.
When i=0, j=1, the total of `array GT 5` is 4 and the total of `array LT 0` is two.
When i=0, j=2, the total of `array GT 5` is 4 and the total of `array LT 0` is two.

See a pattern? ;-)

So, TOTAL(ARRAY GT 5.)+ TOTAL(Array LT 0.)) is never 0, as PaulV said.

Now, what exactly is the problem you're trying to solve?