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Subject: ERROR: Attempt to subscript B with is out of range

Posted by [g.nacarts](#) on Wed, 24 Dec 2014 11:52:11 GMT

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Hi

I've got a 3D array B[100,200,200]. My array B sometimes contains negative values and other times very large values. In order to make sure that when there are either negative or very large values will set to zero I wrote the following code:

```
FOR i=0L,199 DO BEGIN
  FOR j=0L,199 DO BEGIN
    WRONG = total((B[* ,i,j] LT 0) OR (B[* ,i,j] GT 10000))
    IF WRONG GT 0 THEN B[* ,i,j]=0
  ENDFOR
ENDFOR
```

I got the error Attempt to subscript B with j is out of range. I cannot figure out with this happen with the j variable. Any idea?

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Subject: Re: ERROR: Attempt to subscript B with is out of range

Posted by [Helder Marchetto](#) on Wed, 24 Dec 2014 14:28:50 GMT

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On Wednesday, December 24, 2014 12:52:13 PM UTC+1, g.na...@gmail.com wrote:

> Hi

>

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> ENDFOR
```

>

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Hi,

that's not the IDL way. Here is one way of doing it (didn't check, but I think it is also a lot faster):

;create an array

```
b = long(randomu(s,100,200,200)*100)
```

```
b[50,100,100] = -12
```

```
b[51,101,101] = 20000
;look for the bad values
pos = where((a lt 0) or (a gt 10000), cnt)
if cnt gt 0 then b[pos]=0
```

There are other ways of doing this sort of search for values in an array. Have a look at older posts.

Cheers,  
h

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Subject: Re: ERROR: Attempt to subscript B with is out of range  
Posted by [wlandsman](#) on Wed, 24 Dec 2014 15:00:38 GMT  
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I don't know why you are getting a subscript error. But have you done any debugging? In particular

1. What line number does the subscript error occur in?
2. What are the values of I and J when the subscript error occurs?
3. Can you confirm that the array B is still dimensioned 100x 200x200 when the error occurs?

Usually, when I have an error that shouldn't occur, it is because one of my assumptions is faulty.

--Wayne

On Wednesday, December 24, 2014 6:52:13 AM UTC-5, g.na...@gmail.com wrote:

```
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Subject: Re: ERROR: Attempt to subscript B with is out of range  
Posted by [dg86](#) on Sat, 27 Dec 2014 18:32:39 GMT

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On Wednesday, December 24, 2014 6:52:13 AM UTC-5, g.na...@gmail.com wrote:

> Hi

>

> I've got a 3D array B[100,200,200]. My array B sometimes contains negative values and other times very large values. In order to make sure that when there are either negative or very large values will set to zero I wrote the following code:

>

> FOR i=0L,199 DO BEGIN

>     FOR j=0L,199 DO BEGIN

>         WRONG = total((B[\* ,i,j] LT 0) OR (B[\* ,i,j] GT 10000))

>         IF WRONG GT 0 THEN B[\* ,i,j]=0

>     ENDFOR

> ENDFOR

>

> I got the error Attempt to subscript B with j is out of range. I cannot figure out with this happen with the j variable. Any idea?

1. Here's a nice idiom for setting negative values to zero

b = b > 0.

An even more compact version:

b >= 0.

2. Masking large values similarly is quick and easy

threshold = 10000

b = b \* (b le threshold)

The more compact version is

b \*= b le threshold

Summarizing the quick way to achieve your goals

b >= 0. ; set negative values to zero

b \*= b le threshold ; set large values to zero

TTFN,

David

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