Subject: Re: "Expression Must be a Scalar in this context:" error in nlinlsq function
Posted by David Fanning on Tue, 28 Aug 2012 16:23:51 GMT
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elambrid writes:

> So within the function I am using in nlinlsq, I have a common block that contains some global variables that are found within my main routine and used in my function (for simplicities sake it's called ddr). Since nlinlsq works on a "number of functions" basis you pretty much have to recast everything as 1D. I would like to check within my function if a value of one of my arrays is 0, yet the if statement keeps giving me an error of " Expression must be a scalar in
this context: <BYTE Array(5)>." Below is a sketch of the code. Thanks in advance!
>
> pro auto_target_offset
>
> common offset_vals3,blah1,blah2,blah3,...,blah13,aoffxc,aoffyc
> ...
> solution=nlinlsq("ddr",5,3)
> ...
> end
>
> function ddr,m,r
>
> common offset_vals3 (same as above)
> ...
> if aoffxc eq 0 then w=0
> ...
> end
>
> Thanks again!

I would say that the variable aoffxc is a five-element byte array,
when it should be a one-element scalar to use it in a boolean
expression like this. :-)

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: "Expression Must be a Scalar in this context:" error in nlinlsq function
Posted by Erini Lambrides on Tue, 28 Aug 2012 16:27:51 GMT
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> I would say that the variable aoffxc is a five-element byte array,
>
> when it should be a one-element scalar to use it in a boolean
>
> expression like this. :-)

> David

Yes I agree, so I guess what I'm confused about is nlinlsq works like a for loop where the iterations are determined by the amounts of "functions", better word would be the size of you data set. So I have all these variables that look like this e.g a=[b(0)...b(n)] How would I check if one of those values are zero, and perform a statement on them? And thank you for your speedy reply!

-Erini

Subject: Re: "Expression Must be a Scalar in this context:" error in nlinlsq function
Posted by David Fanning on Tue, 28 Aug 2012 16:37:05 GMT
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elambrid writes:

> Yes I agree, so I guess what I'm confused about is nlinlsq works like a for loop where the iterations are determined by the amounts of "functions", better word would be the size of you data set. So I have all these variables that look like this e.g a=[b(0)...b(n)] How would I check if one of those values are zero, and perform a statement on them? And thank you for your speedy reply!

If you want to check an individual element, you
have to check an individual element!

```
 variable = [0, 1, 1, 0, 4]
 FOR j=0,N_Elements(variable)-1 DO BEGIN
    IF variable[j] EQ 0 THEN Print, 'variable ' + StrTrim(j,2) + $
         ' is equal to zero' ELSE Print, 'Good value'
 ENDFOR
```

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.idlcoyote.com/

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: "Expression Must be a Scalar in this context:" error in nlinlsq function
Posted by Yngvar Larsen on Wed, 29 Aug 2012 06:23:25 GMT
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On Tuesday, 28 August 2012 18:27:51 UTC+2, elambrid wrote:
>> I would say that the variable aoffxc is a five-element byte array,
>
>>
>
>> when it should be a one-element scalar to use it in a boolean
>
>>
>
>> expression like this. :-)
>
>
>
>> David
>
>
>
> Yes I agree, so I guess what I'm confused about is nlinlsq works like a for loop where the iterations are determined by the amounts of "functions", better word would be the size of you data set. So I have all these variables that look like this e.g a=[b(0)...b(n)] How would I check if one of those values are zero, and perform a statement on them? And thank you for your speedy reply!

```
B = lonarr(42)
w = dblarr(42)
; ...
zero_ind = where(B eq 0, count)
if count gt 0 then w[zero_ind] = 0
```

Or simply this if you are going to do something if at least one element in B is zero:

```
if total(B eq 0) gt 0 then dostuff, B
```

--
Yngvar