Subject: Array subscript for VECTOR must have same size as source expression
Posted by Rohit Deshpande on Fri, 24 Jun 2011 15:27:33 GMT
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Hello Everyone,

I am a beginner in IDL and I have been working on a project. I explain
it below:

1. The Idea: Read a bunch of FITS files in IDL. They have structure so
I use MRDFITS. I would like to read each one of them in a separate
variable and plot them. Given that each file has X by Y dimension,
where X is always = 19 while Y changes but is mostly 1636.

2. The Code:

```
im = fltarr(n)
all_barytimes = dblarr(19,4000)
all_normflux = dblarr(19,4000)

FOR i = 0, n-1 DO BEGIN
        ; where filenames are the list of fits files I am reading
it.
 im = mrdfits(file+'raw_test/'+string(filenames[i]),1,head)
 all_barytimes[i,*] = im.BARYTIME
 all_normflux[i,*] = im.AP_CORR_FLUX
ENDFOR
```

3. The Error:

```
IDL> lcs1
% READCOL: 21 valid lines read
MRDFITS: Binary table.  19 columns by  1639 rows.
% Array subscript for ALL_BARYTIMES must have same size as source
expression.
% Execution halted at: LCS1
```

Please let me know how to make it work.

Thanks!

Subject: Re: Array subscript for VECTOR must have same size as source expression
Posted by pgrigis on Fri, 24 Jun 2011 19:27:44 GMT
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Well,

this is a typical errors that you will encounter many times
in your idl career.

The line

all_barytimes[i,*] = im.BARYTIME

tries to assign a variable im.BARYTIME into an array all_barytimes,
specifically into a particular column of the array.

The error specifies that im.BARYTIME does not fit into
all_barytimes[i,*]
(likely because it has a different number of elements and/or
dimensions).

Here's an example showing the problem

IDL> a=fltarr(4,4)
IDL> b=fltarr(5)
IDL> a[1,*]=b
% Array subscript for A must have same size as source expression.
% Execution halted at: $MAIN$

see? can't fit the 5 elements of b into a column of a.

Ciao,
Paolo

On Jun 24, 11:27 am, Rohit Deshpande <singlebin...@gmail.com> wrote:
> Hello Everyone,
>
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> it below:
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> 2. The Code:
>
> im = fltarr(n)
> all_barytimes = dblarr(19,4000)

> all_normflux = dblarr(19,4000)
>
> FOR i = 0, n-1 DO BEGIN
> ; where filenames are the list of fits files I am reading
> it.
> im = mrdfits(file+'raw_test/'+string(filenames[i]),1,head)
> all_barytimes[i,*] = im.BARYTIME
> all_normflux[i,*] = im.AP_CORR_FLUX
> ENDFOR
>
> 3. The Error:
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> IDL> lcs1
> % READCOL: 21 valid lines read
> MRDFITS: Binary table. 19 columns by 1639 rows.
> % Array subscript for ALL_BARYTIMES must have same size as source
> expression.
> % Execution halted at: LCS1
>
> Please let me know how to make it work.
>
> Thanks!

Subject: Re: Array subscript for VECTOR must have same size as source expression
Posted by Rohit Deshpande on Sun, 26 Jun 2011 14:22:47 GMT
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On Jun 24, 3:27 pm, Paolo <pgri...@gmail.com> wrote:
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>
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> in your idl career.
>
> The line
>
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>
> tries to assign a variable im.BARYTIME into an array all_barytimes,
> specifically into a particular column of the array.
>
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> all_barytimes[i,*]
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> IDL> a=fltarr(4,4)
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> % Execution halted at: $MAIN$
>
> see? can't fit the 5 elements of b into a column of a.
>
> Ciao,
> Paolo
>
> On Jun 24, 11:27 am, Rohit Deshpande <singlebin...@gmail.com> wrote:
>
>
>
>
>
>
>
>
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>> % READCOL: 21 valid lines read

>> MRDFITS: Binary table. 19 columns by 1639 rows.
>> % Array subscript for ALL_BARYTIMES must have same size as source
>> expression.
>> % Execution halted at: LCS1
>
>> Please let me know how to make it work.
>
>> Thanks!

Thank you so much. I have now created a double array outside the FOR
loop in the following way. This help and I have no errors:

```
all_barytimes = dblarr(n,4450)
all_normflux = dblarr(n,4450)

FOR i = 0, n-1 DO BEGIN
 im =  mrdfits(file+'raw_test/'+string(filenames[i]+'.fits'),1,head )
 arrayend=n_elements(im.BARYTIME)-1
    all_barytimes[i,0:arrayend] = im.BARYTIME
 all_normflux[i,0:arrayend] = im.AP_CORR_FLUX
```