
Subject: Re: Simple question on Arrays

Posted by [Vincent Schut](#) on Mon, 04 Feb 2002 08:44:50 GMT

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Akhila wrote:

```
> HI,  
> I have written a small code to get a 3D array from a 2D array. The  
> error i encounter is :  
>  
> DL> multifile  
> RESULT      STRING  = Array[3]  
> I          INT    =    0  
> % Out of range subscript encountered: A.  
> % Execution halted at: MULTIFILE      16  
> D:\RSI\IDL55\Akhila\JanWeek3\multifile.pro  
> %  
          $MAIN$  
>  
>  
>  
> Can anybody please tell me, why the subscripts are out of range. i'm  
> not able to understand that.  
>
```

[snipped your program code...]

Akhila,

use N_ELEMENTS instead of SIZE.

Size returns not the number of elements in an array, but a couple of other properties, like the number of dimensions (which is *not* the number of elements; a (3,2) array has 6 elements, but 2 dimensions. Your array has only 1 dimension, as it is a 1-dimensional array; and some info about the data type of the argument of size. For more info, see your idl-help or manual.

Using N_ELEMENTS should give you the right result: 3, as your array (as you pick 3 files) has 3 elements.

Hope it helps.

Cheers,
Vincent Schut.

Subject: Re: Simple question on Arrays

Posted by [Bhautik Jitendra Josh](#) on Mon, 04 Feb 2002 10:37:14 GMT

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Hi,

Your code should be something like:

FUNCTION multifile

;get list of filenames

result = Dialog_Pickfile(/Multiple_Files)

;get number of slices

n_slices = n_elements(result)

;create an empty image of size 512x512xn_slices

img = BYTARR(512,512,n_slices)

;for each slice in the selection

for i = 0, n_slices-1 do begin

;get filename

filename = result[i]

;create empty slice

image = bytarr(512,512)

;open file and fill in slice

OpenR, lun, filename, /Get_lun

ReadU, lun, image

Free_lun, lun

;store slice in volume

img[*,*,i]=image

endfor

;return image

return, img

END

You would use this function like:

volume=multifile()

where volume is the final volume of slices you'd like to access.

If you'd like to read DICOM data, then you should replace the three file I/O lines (OPENR, READU, FREE_LUN etc.) with the appropriate lines for reading DICOM data.

Hope this helps.

Cheers,
Bhautik

ps. if you are feeling like a bit of a n00b* with IDL, I do suggest you spend some quality time with the IDL online help, and, when you really want to get into it, <plug> read David Fannings ' IDL Programming Techniques, 2nd Edition,' (www.dfanning.com) </plug> :)

*go see: <http://www.bosskey.net/quake/glossary.html>

```
> hi Dr.Joshi,
>
> here is the code that i wrote to change 2D array into
> a 3D form. I can now see there are as many images as i
> pick. but i want to get them in a variable which will
> be in an array form, that i can index the array for
> the particular slice like a[:,*,10]
>
> i don't know how to save the image in an array form.
>
> Please tell me how to achieve that...
>
> Thanking you,
> Sincerely,
> Akhila.
>
> PRO multifile
>
> result = Dialog_Pickfile(/Multiple_Files)
> help, result
> a = size(result)
> b = a[3]
>
> for i = 0, b-1 do begin
> filename = result[i]
> image = bytarr(512,512)
> OpenR, lun, filename, /Get_lun
> ReadU, lun, image
> Free_lun, lun
> help, image
>
> endfor
>
> END
```

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/
|bjoshi@geocities.com | phone: 0404032617 |
|ICQ #: 2464537 | http://cow.mooh.org |
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