## 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> multfile
- > RESULT STRING = Array[3]
- > I INT = 0
- > % Out of range subscript encountered: A.
- > % Execution halted at: MULTFILE 16
- > D:\RSI\IDL55\Akhila\JanWeek3\multfile.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 multfile
```

;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/guake/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 multfile
>
> 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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```

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