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Subject: Re: index arrays of structures

Posted by [Vince Hradil](#) on Sun, 16 Mar 2008 12:49:23 GMT

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Raghu wrote:

>> On Mar 15, 4:07 pm, Vince Hradil <hrad...@yahoo.com> wrote:

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>>

>>

>>

>>

>>> On Mar 15, 3:53 pm, Raghu <raghuram.narasim...@gmail.com> wrote:

>>

>>>> Hi,

>>

>>>> With reference to my recent posting (IDL batch indexing), i understood

>>>> that i could structures. However, i haven't been able to figure out

>>>> one step.

>>

>>>> Here is my code as of now:

>>>> ; I want to search for all the images(files) in the directory trials,

>>>> read them into the structure named data, and access each file within

>>>> the structure.

>>

>>>> pro strcutres

>>>> dir1='D:\trials'

>>>> cd,dir1

>>>> files=FILE\_SEARCH('\*[^\.{hdr}]', /QUOTE,count=numfiles)

>>>> i=0

>>>> while i lt numfiles do begin

>>>> named=files(i)

>>>> print,named

>>>> data={ID:'a',sizes:fltarr(2179,761)}

>>>> data=replicate(data,numfiles)

>>>> data.sizes=findgen(numfiles)

>>>> openr,1,named

>>>> readu,1,data[i].sizes

>>>> close,1

>>>> i=i+1

>>>> endwhile

>>>> end

>>

>>>> ERROR message- READU: Expression must be named variable in this

>>

>>>> I am getting the error here because it seems like i am not able to

>>>> read in the LUN 1 or named, into data[i].sizes.

```

>>
>>>> Where am i going wrong ?
>>
>>>> Raghu
>>
>>> Hoo boy - here you go.
>>
>>> 1-Yes, you need to use a named variable to readu
>>> 2-You already defined "sizes" (weird name, by the way, how about
>>> "values"), when you made the structure.
>>
>>> How about this:
>>
>>> pro strcutres
>>> dir1='D:\trials'
>>> cd,dir1
>>> files=FILE_SEARCH('*[^\.{hdr}]', /QUOTE,count=numfiles)
>>
>>> data={ID:'a',values:fltarr(2179,761)}
>>> data=replicate(data,numfiles)
>>> tempval = fltarr(2179,761)
>>
>>> for i=0L, numfiles-1 do begin
>>>   named=files(i)
>>>   print,named
>>
>>>   openr,1,named
>>>   readu,1,tempval
>>>   free_lun,1
>>>   data[i].values = tempval
>>
>>> endfor
>>
>>> return
>>> end
>>

>> all the data.id's = 'a'.
>>

>> structure to contain the filename then add data[i].id = named inside
>> the loop.- Hide quoted text -
>>
>> - Show quoted text -
>
> Hi,
>
> Are you asking why i'm using structures in the first place ?

```

> If yes, my initial idea (from python lessons) was to create something  
> like an empty array and then read in each file into this empty array  
> by concatenation. That way each element would have a unique ID which i  
> could use to access them.  
> But it seems like i can't create an empty 2-d array of a certain size  
> and number of files to be read ('numfiles' in my case).  
> When you say create a matrix, is this what you meant ?  
>  
> I got the idea of using structures only from responses in my previous  
> emails on 'batch indexing'.  
>  
> -R

I guess I'm still confused. I was suggesting just doing:  
data = fltarr(nx,ny,numfiles)

then for each files[i] the image is data[\* , i]

It's unique simply by the index.

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