Subject: Re: Question about storing arrays in pointer array.
Posted by David Fanning on Thu, 08 Mar 2012 22:35:53 GMT
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Ian writes:

```
>
>  Hello All,
>  I have a question regarding the storage of arrays within arrays. I am
>  attempting to read in 14 data files with 5 vectors of 512 elements. I
>  have attempted two methods:
>
>
>  ;test attempting to read in variety of data and overplot it in a stack
>  ;without y-axis and single x-axis
>
>  boo=DBLARR(14, 512)
>  ;boo=PTRARR(14)
>  for x = 0,13,1 do begin
>    rdcol, 'iz_diff_rot'+STRCOMPRESS(x,/REMOVE_ALL)
>  +'.dat',p1,p2,p3,p4,p5
>     print, i, " The dat file is: ", 'iz_diff_rot'+STRCOMPRESS(x,/
>  REMOVE_ALL)+'.dat'
>
>  ;attempt 1
>  ;Fills the pointer array with 14 dbl arrays. Use boo=PTR....
>  ;   for i=0,13,1 do begin
>  ;      boo[i]=PTR_NEW(DBLARR(512))
>  ;      p5=boo[i]
>  ;   endfor
>  ;endfor
>
>  ;attempt 2
>  ;Creates two dimensional array of 14 columns with 512 elements. Use
>  boo=DBL....
>     for i = 0,13,1 do begin
>        for j = 0,511,1 do begin
>           boo[i,j]=p5[j]
>        endfor
>        print, boo[i,300]
>     endfor
>  endfor
>
>
>  END
>
>  Attempt one using the pointer array provides 14 arrays but the values
>  are all zero, can anybody give a suggestion on how to store the new p5
```

> in boo[i]?

Don't you want something like this:

```
numFiles = 14
boo = PtrArr(numFiles)
FOR j=0,numFiles-1 DO BEGIN
   data = Read_Data(files[j])
   boo[j] = Ptr_New(Reform(data), /No_Copy)
ENDFOR
```

Now, each pointer points to an array of 512 columns and 5 rows
(to make accessing each row faster!).

If you want the 5th vector of the 7th pointer:

```
 thisRow = (*boo[6])[*,4]
```

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: Question about storing arrays in pointer array.
Posted by cgguido on Thu, 08 Mar 2012 22:44:19 GMT
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On Thursday, March 8, 2012 3:42:44 PM UTC-6, Ian wrote:
> Hello All,
> I have a question regarding the storage of arrays within arrays. I am
> attempting to read in 14 data files with 5 vectors of 512 elements. I
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```
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>
>  END
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>  Attempt one using the pointer array provides 14 arrays but the values
>  are all zero, can anybody give a suggestion on how to store the new p5
>  in boo[i]?
>
>  Thanks for your time.
>  Sincerely
>  Ian
```

What's wrong with a 3D array [14,512,5] ?

What does the pointer business do for you here?

G

Subject: Re: Question about storing arrays in pointer array.
Posted by Ian[2] on Fri, 09 Mar 2012 16:01:06 GMT

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On Mar 8, 2:35 pm, David Fanning <n...@idlcoyote.com> wrote:
> Ian writes:
>

```
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>>  I have a question regarding the storage of arrays within arrays. I am
>>  attempting to read in 14 data files with 5 vectors of 512 elements. I
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```

> ENDFOR
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> Now, each pointer points to an array of 512 columns and 5 rows
> (to make accessing each row faster!).
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> thisRow = (*boo[6])[*,4]
>
> 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.")
>
>

Great! Thank You!

Subject: Re: Question about storing arrays in pointer array.
Posted by Ian[2] on Fri, 09 Mar 2012 16:05:50 GMT
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On Mar 8, 2:44 pm, Gianguido Cianci <gianguido.cia...@gmail.com>
wrote:
> On Thursday, March 8, 2012 3:42:44 PM UTC-6, Ian wrote:
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>>  Ian
>
>  What's wrong with a 3D array [14,512,5] ?
>
>  What does the pointer business do for you here?
>
>  G
>
>
```

I did not want to fill one array with all my data. I figured pointers
might work well and allow faster plotting; however I got it to work
with a 2D array (14,512)as well.
Thanks
Ian
