Subject: Re: Question/Bug on Transpose
Posted by Craig Markwardt on Wed, 22 Aug 2001 23:06:45 GMT
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Joe Means <joe.means@orst.edu> writes:

> Hello IDL group,
> I have this problem transposing 3-D pointer arrays. Try this example:
>
> testptr = ptrarr(2,3,4)
> ccc = Transpose(testptr)
> ;This gives an error:
> % TRANSPOSE: Pointer expression not allowed in this context: TESTPTR.
>
> ;What I really want to do is:
> ccc = Transpose(testptr,[1,0,2]) ;But this gives the same error

This is truly annoying and I think it is a bug.

A simple workaround is to use a FOR loop and copy each plane of your
cube one at a time. It's not luxurious but it will work:

```
inptr  = ptrarr(nx, ny, nz)
outptr = ptrarr(ny, nx, nz)
for i = 0, nx-1 do outptr(*,i,*) = inptr(i,*,*)
```

Craig

--
---------- ----------
Craig B. Markwardt, Ph.D. EMAIL: craigmnet@cow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
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Subject: Re: Question/Bug on Transpose
Posted by on Thu, 23 Aug 2001 07:36:59 GMT
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I think TRANSPOSE only works with basic types. I tried your examples with structures and null objects with the same results. Strangely when transposing a 2D array without the order vector it does the job. With the vector we have the same error. It has the same time a bug's aspect and a limitation's one too. In www.rsinc.com I haven't found any info.

P.S.: My system is also IDL 5.4/Win2kPro

"Joe Means" <joe.means@orst.edu> escreveu na mensagem
news:3B83F5A9.4050808@orst.edu...
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> ;The problem does not occur with a 2-D pointer array:
> testptr2d = ptrarr(2,3)
> bbb = Transpose(testptr2d)
> I run IDL 5.4 on Win2000Pro. I'd like workaround suggestions!
>
> --
> Joseph E. Means
> Assistant Professor, joe.means@orst.edu
> Department of Forest Science
> Oregon State University
> Corvallis, OR 97331-5752
> 541-750-7351
>

Subject: Re: Question/Bug on Transpose
Posted by majewski on Tue, 28 Aug 2001 01:09:03 GMT
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On 22 Aug 2001 18:06:45 -0500, Craig Markwardt
<craigmnet@cow.physics.wisc.edu> wrote:

> inptr = ptrarr(nx, ny, nz)
> outptr = ptrarr(ny, nx, nz)
> for i = 0, nx-1 do outptr(*,i,*) = inptr(i,*,*)

or just perform the transpose on a simple index array and then subscript
your pointer array with that

```
nx = 2 & ny = 3 & nz = 4
testptr = ptrarr(nx, ny, nz)
outptr = testptr[transpose(indgen(nx,ny,nz))]
help, outptr
```

IDL> <Expression> POINTER = Array[4, 3, 2]

you can then fidget with the transpose command to get the correct output array dimensions
leon

Leon Majewski

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