Subject: Re: how to preserve trailing Shallow dimensions!
Posted by Vince Hradil on Thu, 14 Aug 2008 13:28:24 GMT
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On Aug 14, 6:33 am, vino <astrocr...@gmail.com> wrote:
> Hello Everyone,
> I was wondering whether there is any way i can preserve a trailing
> shallow dimension in array?
>
> eg:
> IDL> ab=make_array(2,1,1)
> IDL> print,size(ab,/dimensions)
> 2
> How can i make it preserve it as 2 1 1?
>
> Thanks and regards,
> Vino

Perhaps you should tell us why... The answer may be different than
you expect...

So, anyways, the trailing dims are "still there" as 1's:

```
IDL> f = findgen(3,1,1)
IDL> help, f
F               FLOAT     = Array[3]
IDL> help, f[*,0]
<Expression>    FLOAT     = Array[3]
IDL> help, f[*,0,0]
<Expression>    FLOAT     = Array[3]
IDL> print, f
    0.000000      1.00000      2.00000
IDL> print, f[*,*]
    0.000000      1.00000      2.00000
IDL> print, f[*,0]
    0.000000      1.00000      2.00000
IDL> print, f[*,0,0]
    0.000000      1.00000      2.00000
IDL> print, f[*,*,*]
    0.000000      1.00000      2.00000
```

If you are worried about the SIZE function:

```
IDL> fsize = size(f,/dimensions)
IDL> nx = fsize[0]
IDL> if n_elements(fsize) gt 1 then ny = fsize[1] else ny = 1L
IDL> if n_elements(fsize) gt 2 then nz = fsize[2] else nz = 1L
etc...
```

Subject: Re: how to preserve trailing Shallow dimensions!
Posted by vino on Thu, 14 Aug 2008 13:39:44 GMT
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Hi!
Thank you very much for the reply. As you said, my problem is with the size function. I am doing stellar photometry. I store star position in an array and most of the time, i am tracking more than 1 star but the problem arose when i had only star in my image. But i think the problem might be solved if i follow your example...
Thanks again,
Vino

On Aug 14, 2:28 pm, Vince Hradil <hrad...@yahoo.com> wrote:
> On Aug 14, 6:33 am, vino <astrocr...@gmail.com> wrote:
>
>> Hello Everyone,
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>> eg:
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> Perhaps you should tell us why... The answer may be different than
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> So, anyways, the trailing dims are "still there" as 1's:
>
> IDL> f = findgen(3,1,1)
> IDL> help, f
> F FLOAT = Array[3]
> IDL> help, f[*,0]
> <Expression> FLOAT = Array[3]
> IDL> help, f[*,0,0]
> <Expression> FLOAT = Array[3]
> IDL> print, f
> 0.000000 1.00000 2.00000
> IDL> print, f[*,*]
> 0.000000 1.00000 2.00000

> IDL> print, f[*,0]
>   0.000000   1.00000   2.00000
> IDL> print, f[*,0,0]
>   0.000000   1.00000   2.00000
> IDL> print, f[*,*,*]
>   0.000000   1.00000   2.00000
>
> If you are worried about the SIZE function:
> IDL> fsize = size(f,/dimensions)
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> IDL> if n_elements(fsize) gt 1 then ny = fsize[1] else ny = 1L
> IDL> if n_elements(fsize) gt 2 then nz = fsize[2] else nz = 1L
> etc...

Subject: Re: how to preserve trailing Shallow dimensions!
Posted by Mark[1] on Sun, 17 Aug 2008 22:43:20 GMT
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Functions like make_array and indgen silently strip off trailing
shallow dimensions, but it is possible to override this using reform,
eg:

```
IDL> help, make_array(2,1,1)
<Expression>    FLOAT     = Array[2]
IDL> help, reform(make_array(2,1,1),2,1,1)
<Expression>    FLOAT     = Array[2, 1, 1]
```

The size function does accurately report the number of dimensions, I
think

```
IDL> print, size(make_array(2,1,1), /DIMENSIONS)
           2
IDL> print, size(reform(make_array(2,1,1),2,1,1), /DIMENSIONS)
           2           1           1
```

However, IDL is generally prone to chopping them off when you least
expect it, so is best to write code that will handle this.
