
Subject: Re: behavior of arrays

Posted by [Pavel Romashkin](#) on Wed, 19 May 1999 07:00:00 GMT

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I do not quite realize what is the point in this exercise. FLTARR(10,1) is an array with 10 columns and 1 row (which all is meaningful only in the direction of array operations which in IDL is row-wise). Therefore, seems to me that FLTARR(10, 1) is the same as FLTARR(10) to begin with (unlike FLTARR(1, 10)). If you anticipate expanding the matrix, its easy to do by using TRANSPOSE and subscripts. I have never experienced a problem with losing or mixing up dimensions, although most of my data are matrices. In the example below, I see no loss of information in the transition from d to c. If you defined more than 1 row, C would be 2D in the last statement.

Cheers,
Pavel

"R.Bauer" wrote:

```
> I have some problems to understand the logic which may be behind the
> handling of an array
> like defined.
>
> Why is the result help, b.d only [10] and not [10,1] ?
>
> This means I will lose the information that's it is / was a 2-dim
> dataset.
>
> R.Bauer
>
> d=reform(findgen(10),10,1)
> help,d
> ;D          FLOAT    = Array[10, 1]
>
> b=create_struct('d',d)
> help,b,/str
>
> ;** Structure <1348428>, 1 tags, length=40, refs=1:
> ; D          FLOAT    Array[10, 1]
>
> help,b.d
> ; <Expression>  FLOAT    = Array[10]
>
> c=b.d
> help,c
> ; C          FLOAT    = Array[10]
```

Subject: Re: behavior of arrays

Posted by [Craig Markwardt](#) on Wed, 19 May 1999 07:00:00 GMT

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Don't get me started on this again. You can find my recent tirade on this subject under "dropped dimensions" on dejanews.com.

For the case of your structure, I think that b.d is *actually* still a 10x1 array, but any access to it will cause IDL to automatically collapse the degenerate dimension in the expression. Therefore, even HELP thinks that it is a 10-vector, not a 10x1 array.

Practically speaking, you will need to REFORM() your array whenever you need to use it.

Craig

"R.Bauer" <R.Bauer@fz-juelich.de> writes:

```
>
> I have some problems to understand the logic which may be behind the
> handling of an array
> like defined.
>
> Why is the result help, b.d only [10] and not [10,1] ?
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> This means I will lose the information that's it is / was a 2-dim
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> d=reform(findgen(10),10,1)
> help,d
> ;D          FLOAT    = Array[10, 1]
>
> b=create_struct('d',d)
> help,b,/str
>
> ;** Structure <1348428>, 1 tags, length=40, refs=1:
> ; D          FLOAT    Array[10, 1]
>
>
> help,b.d
> ; <Expression>  FLOAT    = Array[10]
```

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Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
