
Subject: array indices again

Posted by [Henry Chapman](#) on Thu, 03 Jun 1999 07:00:00 GMT

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Hi all,

I remember a few weeks back there was a lot of discussion about indexing multiple dimensions of arrays, and doing things such as

```
IDL> print,(a[x,*])[*,x]
```

I just noticed something that may or may not have come up in those discussions (but I wasn't paying attention). It is most easily explained by Liam's example of extracting every second row and column of an array

```
IDL> a=indgen(10,10)
```

```
IDL> x=indgen(5)*2
```

```
IDL> print, a[x, x, 0]
```

0	2	4	6	8
20	22	24	26	28
40	42	44	46	48
60	62	64	66	68
80	82	84	86	88

It seems that by extending the 2-d array `a` into another dimension, where the extra dimension has no size (sounds like string theory!) the indexing works the way I want it to. I noticed this when I had a 3-d array and was extracting a 2-d array from it, as in `b[x, x, i]` where `x` is a 1-d array and `i` is a scalar. This seems to work on arrays of any dimension.

I apologise if this was mentioned before,

Henry.

--

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Subject: Re: array indices again

Posted by [Martin Schultz](#) on Thu, 03 Jun 1999 07:00:00 GMT

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> --
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nice feature! I was really astonished when I saw it works even for non-equal dimensions:

however, (a puzzle for the unexperienced IDL user):
`print,a[x,y]`
 will result in an error message...

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