
Subject: Undocumented array indexing feature?

Posted by [Liam Gumley](#) on Thu, 21 Jan 1999 08:00:00 GMT

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Here's a way to index an array I hadn't seen before:

```
a = indgen(10,10)
x = [3,5,8,9]
y = [2,7]
print, (a[x,*])[*,y]
      23    25    28    29
      73    75    78    79
```

Does anyone know where this feature (i.e. enclosing an array with parentheses and appending an index) is documented? I couldn't find it in my printed IDL 5.0 documentation.

Cheers,
Liam.

Liam E. Gumley
Space Science and Engineering Center, UW-Madison
1225 W. Dayton St., Madison WI 53706, USA
Phone (608) 265-5358, Fax (608) 262-5974
<http://cimss.ssec.wisc.edu/~gumley>

Subject: Re: Undocumented array indexing feature?

Posted by [Martin Schultz](#) on Tue, 26 Jan 1999 08:00:00 GMT

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R.Bauer wrote:

>> Bill B. wrote:

> [...]

>> Oh, I knew that one, Alex. Anyone know which method offers faster execution -

>>

>> a = 0 & b = 0 * OR * a = (b = 0)

>>

>> this is important when applying the same principle to large arrays. At least

>> to those of us with slower PCs :(

>

> Initializing of big arrays should be done by a=make_array(200,100000,/nozero)

> This is the fastest method

>

> R.Bauer

but then you have them uninitialized! A fair comparison is

```
a = make_array(dim1,dim2,type)
```

Here is some timing info (IDL 5.1 on SGI Origin 2000):
[only one pass each, but these numbers don't change much]

```
A1 = FLTARR(1000,1000) & A2 = FLTARR(1000,1000)
0.031656981 + 0.032227993 = 0.063884974 seconds
```

```
B2 = ( B1 = FLTARR(1000,1000) )
0.085137010 seconds
```

```
C1 = MAKE_ARRAY(1000,1000,/FLOAT) & C2 = ...
0.037186027 + 0.040596962 = 0.077782989 seconds
```

```
D1 = MAKE_ARRAY(1000,1000,/FLOAT,/NOZERO) & C2 = ...
0.00017607212 + 0.00011897087 = 0.00029504299 seconds
```

Regards,
Martin.

--

Dr. Martin Schultz
Department for Engineering&Applied Sciences, Harvard University
109 Pierce Hall, 29 Oxford St., Cambridge, MA-02138, USA

phone: (617)-496-8318
fax : (617)-495-4551

e-mail: mgs@io.harvard.edu
Internet-homepage: <http://www-as.harvard.edu/people/staff/mgs/>

Subject: Re: Undocumented array indexing feature?
Posted by [R.Bauer](#) on Tue, 26 Jan 1999 08:00:00 GMT
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wbiagiot@suffolk.lib.ny.us wrote:

```
> In article <36AC8341.EC8@rosa.mpin-koeln.mpg.de>,
> Alex Schuster <alex@rosa.mpin-koeln.mpg.de> wrote:
>> wrb1000@my-dejanews.com wrote:
>>
>>> This is veering offtopic, but I'd just like to add my two cents.
>>> IDL, like C, has many constructs that may add placed on a line to
>>> condense the actual length of the program. However, just like C, the
```

```
>>> readability and understanding factors tend to drop. I intend to use the
>>> a=(b=(c=1)) example. I always wondered how to initialize multiple variables
>>> on the same IDL line.
>>
>> Now that's an easy one:
>>
>> IDL> a=1 & b=2 & c=3 & d=4 &
>>
>> Voila, one line :-)
```

>>

>> Alex

>

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R.Bauer
