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## "Kenneth P. Bowman" wrote:

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> documentation that states that repeated subscripts are handled
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>
> IDL> a = FINDGEN(5)
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                              12.0000
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                                                      4.00000
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                              12.0000
                                          3.00000
                                                      4.00000
>
> Even this doesn't help.
> Ken
>
>
The expression on the right is evaluated first. So your last example,
a[i] = a[i] + [10.0, 10.0, 10.0]
could be written as,
[a[2], a[2], a[2]] = [a[2], a[2], a[2]] + [10.0, 10.0, 10.0]
```

or,

$$[a[2], a[2], a[2]] = [12.0, 12.0, 12.0]$$

which is the same as,

```
a[2] = 12.0

a[2] = 12.0

a[2] = 12.0
```

So the operation does occur more than once, but it's just the same operation. If you try a[i] = a[i] + [x, y, z], a[2] will equal 'z', since that expression was executed last.

I hope this helps, Steve Hartmann

Subject: Re: Array subscript question Posted by davidf on Thu, 02 Mar 2000 08:00:00 GMT View Forum Message <> Reply to Message

Kenneth P. Bowman (bowman@null.edu) writes:

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```

Uh, I'm sure it's doing the operation three times, Ken.

But always to the same value. :-)

Sounds what you want is a loop. I'm not too fond of them in IDL, but certainly it's appropriate here. I think the answer to your question really is this: array subscripting operations are NOT loops!

```
FOR I=0,2 DO a[2] = a[2] + 10.0
```

Cheers,

David

\_.

David Fanning, Ph.D.

Fanning Software Consulting

Phone: 970-221-0438 E-Mail: davidf@dfanning.com

Coyote's Guide to IDL Programming: http://www.dfanning.com/

Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: Array subscript question
Posted by John-David T. Smith on Fri, 03 Mar 2000 08:00:00 GMT
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```
"J.D. Smith" wrote:
>
  "Kenneth P. Bowman" wrote:
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```
>> <Expression>
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>> IDL> a = FINDGEN(5)
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>>
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                                           3.00000
> A fast solution (better than loops in many cases), is listed in the manual using
> the histogram function (everyone's favorite), though it works for integer (long
> or otherwise) types only.
Actually, that's not really true. The sun is out and temporarily incapacitated
by reasoning abilities.
As long as your i vector is >=0 and <n_elements(A), you can do:
a=a+histogram(i,MIN=0,MAX=n elements(a)-1)*10.
JD
J.D. Smith
                                   WORK: (607) 255-5842
                             |*|
Cornell University Dept. of Astronomy |*|
                                                 (607) 255-6263
304 Space Sciences Bldg.
                                    |*|
                                           FAX: (607) 255-5875
Ithaca, NY 14853
                                 |*|
```

Subject: Re: Array subscript question
Posted by John-David T. Smith on Fri, 03 Mar 2000 08:00:00 GMT
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A fast solution (better than loops in many cases), is listed in the manual using the histogram function (everyone's favorite), though it works for integer (long or otherwise) types only.

I'll simply regurgitate:

The HISTOGRAM function can also be used to increment the elements of one vector whose subscripts are contained in another vector. To increment those elements of vector A indicated by vector B, use the command:

```
A = HISTOGRAM(B, INPUT=A, MIN=0, MAX=N_ELEMENTS(A)-1)
```

This method works for duplicate subscripts, whereas the following statement never adds more than 1 to any element, even if that element is duplicated in vector B:

```
A[B] = A[B]+1

JD

--

J.D. Smith |*| WORK: (607) 255-5842

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304 Space Sciences Bldg. |*| FAX: (607) 255-5875

Ithaca, NY 14853 |*|
```