Subject: Re: Array subscript question
Posted by Steve Hartmann on Thu, 02 Mar 2000 08:00:00 GMT
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"Kenneth P. Bowman" wrote:

> Can someone explain this behavior to me? I can't find anything in the
> documentation that states that repeated subscripts are handled
> differently.
>
> IDL> a = FINDGEN(5)
> IDL> i = [1, 2, 3]
> IDL> a[i] = a[i] + 10.0
> IDL> PRINT, a
> 0.00000 11.0000 12.0000 13.0000 4.00000
>
> This is the behavior I expect.
>
> IDL> a = FINDGEN(5)
> IDL> i = [2, 2, 2]
> IDL> a[i] = a[i] + 10.0
> IDL> PRINT, a
> 0.00000 1.00000 12.0000 3.00000 4.00000
>
> Why does it only do the operation *once* when
> IDL> HELP, a[i]
> <Expression> FLOAT = Array[3]
>
> IDL> a = FINDGEN(5)
> IDL> i = [2, 2, 2]
> IDL> a[i] = a[i] + [10.0, 10.0, 10.0]
> IDL> PRINT, a
> 0.00000 1.00000 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
