Subject: Re: Array subscript question
Posted by John-David T. Smith on Fri, 03 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

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

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