Subject: Re: Specification for a new array slicing function
Posted by bowman on Thu, 20 May 1999 07:00:00 GMT
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In article <7i0igd$1er$1@readme.uio.no>, steinhh@ulrik.uio.no (Stein Vidar Hagfors Haugan) wrote:

> There are some issues
> that I would like to clear up, though: What exactly does
> the 0:5:2 sequence mean? Does it mean elements 0:5, sampled
> with a stride of 2? Or does it mean 5 elements sampled with
> a stride of 2, starting from 0? Or is it START:STRIDE:COUNT,
> meaning 2 elements, sampled with a stride of 5?
>
> Just curious.... And I would strongly recommend following
> Fortran conventions, whatever they are....

I have the Numerical Recipies in Fortran 90 book, which has a nice, short introduction to F90 concepts.

The F90 syntax is a(lower:upper:stride) or as I prefer to think about it a(from:to:by). It works exactly like a DO (or FOR) loop, which the new indexing largely replaces. You can have negative strides if upper<lower. If upper-lower has a different sign than stride, you get a null result.

So in F90

b = a(10:1:-1)

would give a in reverse order. I find thi more appealing that having to look up the direction parameters in ROTATE.

In IDL this could be

b = a[*:0L:-1]

Still better than F90 because of the * (an the zero-based indexing, of course :-)).

Finally, much of F90 was developed to make parallel programming easier. I would hope that true parallelism is a goal for IDL (rather than just better ActiveX controls).

Ken

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Replace AT with @