Subject: Re: Naive pointer question ?
Posted by Paul van Delst on Thu, 24 Jan 2002 14:53:14 GMT

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trouble wrote:
>
> Yo,
>
> Thanks for the input - I've been looking through my IDL library
> looking for routines to adapt for pointers but can't see any very
> obvious candidates (don't need data structures beyond trivial in
> complexity).
> However, one useful app for me is Paul's suggestion for 'a data array
> where each "element" is another array, and each one is a different
> size'. Would I need to store the length of each element in a separate
> array ? And then store both arrays in a structure ?

I don't think that's necessary. A simple example would be (excuse any syntax errors - it's been
a while since I've actually used IDL....):

```
 ; -- Define array sizes simply for this example
 ; -- In real app, array sizes are determined at runtime
 array_sizes = [ 10, 2300, 45, 300, 3 ]
 n = N_ELEMENTS( array_sizes )

 x = PTRARR( n )
 FOR i = 0, n - 1 DO BEGIN
   x[i] = PTR_NEW( FLTARR( array_sizes[ i ] ) )
 ENDFOR
```

I can then stick data in any particular array and/or check it's length

```
 length = N_ELEMENTS( *x[i] )
```

etc etc. layering onwards to further complexity as needed. Usually I have structures that
contain pointer arrays to other structures which contain pointer to arrays of varying sizes.
Sounds messy, and sometimes is, but it does make for quite flexible data structures.

Depending on the complexity of your data structure, using an object might be the way to go -
you get a bit more protection wrt to killing/dropping/losing pointer references and a simpler
interface to the data but at the expense of even more complexity (and time designing it all in
your head/on paper).

cheers,

paulv

p.s. Common blocks are not evil. They are unfairly maligned (and misaligned) but should be used

judiciously.... just like GOTOs.

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