Subject: Re: Naive pointer question ?
Posted by James Kuyper on Wed, 23 Jan 2002 16:02:04 GMT

trouble wrote:

> From my understanding, pointers are useful in C where you have the
> option of passing by value or by reference, but in IDL it seems one
> *always* passes by reference (insofar as any variable passed to a
> function and then changed within that function is also changed in the
> calling function).

IDL does NOT always pass by reference. It passes expressions, constants, and system variables by value. For constants, that's quite reasonable. However, for system variables that are writeable, it means that they can't be updated by reference, but only by explicitly assigning them.

Also, subscripted arrays and references to fields of a structure count as expressions, and hence are not passed by reference, a fact that surprised me the first time I got bit by it. From my C background, I expected to be able to pass structure.array_member to a function, and have that function be able to update elements of that array_member. I also expected to be able to pass array(0,*) to a function, and have that function be able to update array(0,2). I understand now why that doesn't work; I'm just saying that it's not what I expected.