
Subject: Re: Is this a bug?

Posted by [J.D. Smith](#) on Fri, 02 Oct 1998 07:00:00 GMT

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menakkis@my-dejanews.com wrote:

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>
> David Foster <foster@bial1.ucsd.edu> wrote:
> <...>
>>  ((*p).s.a)[2] = ((*p).s.a)[2] * 4
>>  % Temporary variables are still checked out - cleaning up...
>>
>>  print, ((*p).s.a)[2]
>>      48                ; Value was not adjusted
>
> < SNIP >
> Perhaps like me you're a bit uneasy about having to put brackets around
> dereferenced pointers to get at structure members or array elements therein.
> It really does go against the grain, doesn't it? Any superfluous brackets
> and you get this "calculation mode" thing kicking in. I must say that I
> can't see a way around this, though, given what I gather about how IDL's
> variables work. I guess an interpretation of what (*p) means is: "make a
> temporary variable *control* structure to get at the contents of p"; you can
> then use the "thing" (*p) as if it was a variable name. It takes some
> getting used-to, but it *is* very efficient for dereferencing just an array
> element or structure member. (I was going to sound forth on how I dislike
> this syntax but had second thoughts.)
```

I would interpret (*p) as "lookup and use the heap variable pointed to by p". This is for all purposes the same meaning as *p, because a temporary copy of a heap variable is not well-defined, since heap variables are global and long-lived by definition. That is, even if IDL is making a temporary copy of whatever internal variable (likely a C pointer) is tied to <PtrHeapVar1>, this is just as valid a reference to the global heap as *p. It is unclear if *p vs. (*p) actually elicits different internal handling by IDL (with perhaps more overhead for the latter). Even if so, however, it will not make any difference to our usage. In this context the ambiguity is not as alarming.

JD

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