Subject: Re: pointer question
Posted by John-David T. Smith on Thu, 22 Mar 2001 16:56:16 GMT
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Ted Graves wrote:
>
> Hi all,
>
> Another lurker question ... let's say you define a pointer using the PTR_NEW
> function and assign to a variable x. As long as you keep track of x and don't
> reassign x and lose the pointer to the heap variable, things are great. You
> can remove the heap variable from memory using the PTR_FREE procedure.
>
> But now let's say i have a function TEST that takes a pointer as an argument,
> and i want to create a pointer on the fly to use in TEST. So i do something
> like
>
> result = TEST(PTR_NEW(value))
>
> where value is whatever i want the heap variable to be. What happens to the
> heap variable assigned in this statement after TEST returns? I'm assuming
> from that because of the way it was created, a heap variable now exists that i
> can't easily get rid of without using HEAP_GC.
>
> Me and my sloppy programming ...

On an only slightly related note, does everyone know that you can recover a pointer to a "lost" heap variable using ptr_valid? Here's an example:

```
IDL> a=ptr_new(1)
IDL> print,a
<PtrHeapVar4>
IDL> a='oh no, I overwrote my pointer variable'
IDL> help,/heap_variables
Heap Variables:
   # Pointer: 1
   # Object : 0

<PtrHeapVar4>   INT      =       1
IDL> a=ptr_valid(4,/CAST)
IDL> print,*a
      1
```

You can also get a vector of pointers to every heap variable using:

```
IDL> pvec=ptr_valid()
```

While this isn't exactly useful programatically, it may get you out of a pinch.

JD