Subject: Re: Proper pointer cleanup question
Posted by David Fanning on Tue, 08 Apr 2003 18:03:38 GMT
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M. Katz (MKatz843@onebox.com) writes:

> Thanks! I'll write myself a full reverse-ordered cleanup routine.
> I suppose this explicit cleanup is just as important for objects as
> well:
> Object pointer fields should be explicitly freed in the Cleanup
> method.
>
> Question 1) But what about simple scalar pointers?
> a = ptr_new(fltarr(10,10))
>
> If I set
> a = 0
> Will I have stranded my fltarr(), or is IDL smart enough to deallocate
> it properly?

You will have leaking memory. IDL, as a weakly typed
language, always allows you to write dangerous code. :-)

> Question 2) Then how about this scenario
> a = ptr_new(fltarr(10,10))
> b = ptr_new(dblarr(5,5))
>
> a = b ;--- Does this strand the original a array?

Yes, for the same reason as above. You are re-defining A
before you have freed the memory the original pointer A
pointed to.

> *a = *b ;--- How about this?

This is perfectly OK. IDL handles pointer memory as it does
regular variable memory. Pointer A now points to the same data
as pointer B, but the memory pointer A originally pointed to
has been de-allocated by IDL.

> From looking at help, /memory and testing the above, I think the
> answer to both of my questions is that memory IS stranded unless you
> explicitly free it in all of the above cases.

No, *ptr = someNewData is always permissible. Just like
this is permissible:

a = 5

a = [10, 10]

Cheers,

David

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David W. Fanning, Ph.D.
Fanning Software Consulting, Inc.
Phone: 970-221-0438, E-mail: david@dfanning.com
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Toll-Free IDL Book Orders: 1-888-461-0155
