
Subject: Object Data and pointer assignments

Posted by [Ben Tupper](#) on Thu, 09 Mar 2000 08:00:00 GMT

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Hello,

I am in the middle of wrtting my first object from scratch. Scratch is a good word since I'm doing a lot of that on my head. I'm hoping to get some advice on organization of data. I need 4 pieces of data (one 2d arrays and two structures that vary in size according to the size of the arrays) plus six keywords that I need to get/set. Currently, I have defined each of the 3 bits of data as null pointers in the BLAH__DEFINE procedure.

In the BLAH::INIT function, the user passes one of the two arrays as an argument. At that point I reassign one of the pointers to...

```
Self.InArray = Ptr_New(InArray).
```

I think I understand why I can reassign the structure field when going from a null pointer to a filled pointer. On second thought, I don't understand it but I can accept that it works. It's the next step I need help on.

I would like to change the contents of this field later to some other value (a differently sized array.) Here's where the ice under me gets very very thin and my eyes get misty. In the BLAH::SETPROPERTY method, I don't know if I should free this pointer before reassigning (and does that leave the structure field undefined?), or if I should simply overwrite it as I did in the INIT function. If I reassign the filed to a new pointer, what happens to the previously occupied heap space? Have I sprung a leak?

Thanks!

Ben

--

Ben Tupper

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Brad Gom (b_gom@hotmail.com) writes:

```
>> To reassign the pointer to something else (after it has been
>> defined by the INIT method), you simple de-reference the pointer:
>>
>>  *self.InArray = newStruct
>>
>> You don't leak any memory because IDL is managing this
>> whole process for you.
>
> Thanks for clearing this up, David. These details didn't exactly jump out of
> the manuals at me.
```

No. Not exactly. :-)

```
> On a related topic, does anyone know if it is possible to leak memory without
> beeing able to see any lost heap variables with the 'help,/heap' command? I
> find that in a couple IDL programs that deal with shuffling large chunks of
> data back and forth in memory, IDL does not seem to free all the memory it
> uses back to the system. ie. When I monitor the memory usage with the Windows
> NT task manager, the amount of used memory climbs each time the IDL program is
> executed, and doesn't fall all the way back down -even though there doesn't
> seem to be anything in the heap. When I shut down IDL, all the memory gets
> freed.
```

NO IDL process (and I include IDL for Windows) gives memory back to the operating system while the process is running. What you are seeing is more likely the result of poor memory management inside a program module (e.g., not undefining an image variable when you are done with it before reading another one, etc.) than it is any leaking memory.

```
> Is this something I should worry about, or is it just a consequence of running
> in Windows? The memory 'loss' isn't severe, but I worry that my program is
> losing track of memory somehow.
```

Is is something you should worry about? Well, don't you own any Microsoft stock or something *really* worth worrying about? My oldest son got a girlfriend and a driver's license within days of one another. Now *that* is something worth worrying about. :-(

Cheers,

David

--

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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: Object Data and pointer assignments

Posted by [promashkin](#) on Thu, 11 May 2000 07:00:00 GMT

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Brad Gom wrote:

- > When I monitor the memory usage with the Windows
- > NT task manager, the amount of used memory climbs each time the IDL program is
- > executed, and doesn't fall all the way back down -even though there doesn't
- > seem to be anything in the heap. When I shut down IDL, all the memory gets
- > freed.

I gave up on memory checks. On my Mac, I have two system monitors, and they give me different results if run at the same time. One tells me my OS is using 34 Mb, another - 58 Mb. Pretty significant, huh? My Microsoft Word, just idle, sometimes increases memory use for no apparent reason, likely reflecting the predatory nature of the company itself. For IDL, in Windows, I am not even concerned with that, I never ran out of memory yet, despite my humble 64 Mb of RAM. On a Mac I do (despite its 256 Mb of RAM), since it will not reallocate RAM. Oh well. Its a Mac thing, no NT user can understand :-). I guess Apple guys think it empowers the user, when he is to keep track of how much memory his applications use :-(

Cheers,
Pavel

Subject: Re: Object Data and pointer assignments

Posted by [Brad Gom](#) on Thu, 11 May 2000 07:00:00 GMT

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Is this something I should worry about, or is it just a consequence of running in Windows? The memory 'loss' isn't severe, but I worry that my program is losing track of memory somehow.

Thanks

Brad

Subject: Re: Object Data and pointer assignments
Posted by [promashkin](#) on Mon, 15 May 2000 07:00:00 GMT
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David Fanning wrote:

> My oldest son got a girlfriend and
> a driver's license within days of one another. Now
> *that* is something worth worrying about. :-(

For as long as he has only a license and no car, they will be just fine :-)

Cheers,
Pavel
