Subject: Re: One RETALL is not enough

Posted by DavidF[1] on Fri, 26 Oct 2012 20:44:05 GMT

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Wayne Landsman writes:

> While debugging a program, I've been getting error messages after a RETALL like the following:

>

- > IDL> retall
- > % Invalid pointer: <POINTER (<PtrHeapVar2858>)>.
- > % Execution halted at: XYZ DEFAULTS::CLEANUP 456
- > IDL> retall
- > % Invalid pointer: <POINTER (<PtrHeapVar2578>)>.
- > % Execution halted at: XYZ_DEFAULTS::CLEANUP 456
- > IDL> retall

>

> % Temporary variables are still checked out - cleaning up...

> IDL> retall

>

> So one RETALL is not enough to get a normal return, but if I give four RETALLs then there is enough of an extra "push" to give a normal return;-) I first thought this was just a timing problem, and that the pointer cleanup wasn't complete at the time of the first RETALL, but it was complete by the time of the fourth RETALL. But the errors always appear in the same pattern as above, requiring 4 RETALLs no matter how much time I give. Any suggestions as to what is happening?

No ideas on what is happening, but this could easily explain the extremely strange results I've seen when doing object programming in IDL classes. We seem to get stuck in some Alice in Wonderland world where things appear to be working, but aren't. Part of the reason for our problems could be that we aren't at the program level we think we are.

I'll try the four RETALL trick next time and see if it helps. ;-)

Cheers,

David

Subject: Re: One RETALL is not enough Posted by Michael Galloy on Sat, 27 Oct 2012 21:02:24 GMT View Forum Message <> Reply to Message

wlandsman <wlandsman@gmail.com> wrote:

- > While debugging a program, I've been getting error messages after a
- > RETALL like the following:

```
>> retall
> % Invalid pointer: <POINTER (<PtrHeapVar2858>)>.
> % Execution halted at: XYZ DEFAULTS::CLEANUP 456
>> retall
> % Invalid pointer: <POINTER (<PtrHeapVar2578>)>.
> % Execution halted at: XYZ DEFAULTS::CLEANUP 456
>> retall
> % Temporary variables are still checked out - cleaning up...
>> retall
> So one RETALL is not enough to get a normal return, but if I give four
> RETALLs then there is enough of an extra "push" to give a normal return
       I first thought this was just a timing problem, and that the
> pointer cleanup wasn't complete at the time of the first RETALL, but it
> was complete by the time of the fourth RETALL.
                                                    But the errors
> always appear in the same pattern as above, requiring 4 RETALLs no matter
> how much time I give.
                           Any suggestions as to what is happening?
                                                                      Thanks, --Wayne
>
> P.S. Line 456 where the first errors occurs is the following.
  IF OBJ VALID(self.files.class.Revclasshash) THEN OBJ DESTROY,
> self.files.class.Revclasshash
> where 'files' and 'class' are structures, and Revclasshash is an object
```

I regularly have cases where I need two EXITs to get out of IDL. I wonder if that is related.

Mike

--

www.michaelgalloy.com Research Mathematician Tech-X Corporation

Subject: Re: One RETALL is not enough Posted by Russell Ryan on Sat, 27 Oct 2012 22:45:47 GMT View Forum Message <> Reply to Message

Aagh.. reminds me of flpr flpr in iraf. Now, that's a Halloween scare...

On Friday, October 26, 2012 4:26:22 PM UTC-4, wlandsman wrote: > While debugging a program, I've been getting error messages after a RETALL like the following:

>

>

>

```
> IDL> retall
  % Invalid pointer: <POINTER (<PtrHeapVar2858>)>.
>
  % Execution halted at: XYZ DEFAULTS::CLEANUP 456
 IDL> retall
>
  % Invalid pointer: <POINTER (<PtrHeapVar2578>)>.
>
  % Execution halted at: XYZ DEFAULTS::CLEANUP 456
>
 IDL> retall
>
>
  % Temporary variables are still checked out - cleaning up...
>
 IDL> retall
>
>
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problem, and that the pointer cleanup wasn't complete at the time of the first RETALL, but it was
complete by the time of the fourth RETALL.
                                              But the errors always appear in the same pattern
as above, requiring 4 RETALLs no matter how much time I give.
                                                                 Any suggestions as to what is
happening?
             Thanks, --Wayne
>
>
 P.S. Line 456 where the first errors occurs is the following.
>
>
>
  IF OBJ_VALID(self.files.class.Revclasshash) THEN OBJ_DESTROY,
self.files.class.Revclasshash
>
>
> where 'files' and 'class' are structures, and Revclasshash is an object
```

Subject: Re: One RETALL is not enough Posted by Yngvar Larsen on Mon, 29 Oct 2012 11:25:43 GMT View Forum Message <> Reply to Message

On Saturday, 27 October 2012 23:02:24 UTC+2, Mike Galloy wrote:

- > wlandsman wrote:
- >> While debugging a program, I've been getting error messages after a

```
>> RETALL like the following:
>>
>>> retall
>> % Invalid pointer: <POINTER (<PtrHeapVar2858>)>.
>> % Execution halted at: XYZ_DEFAULTS::CLEANUP 456
>>> retall
>> % Invalid pointer: <POINTER (<PtrHeapVar2578>)>.
>> % Execution halted at: XYZ DEFAULTS::CLEANUP 456
>>> retall
>> % Temporary variables are still checked out - cleaning up...
>>> retall
>>
>> So one RETALL is not enough to get a normal return, but if I give four
>> RETALLs then there is enough of an extra "push" to give a normal return
        I first thought this was just a timing problem, and that the
>> pointer cleanup wasn't complete at the time of the first RETALL, but it
>> was complete by the time of the fourth RETALL.
                                                      But the errors
>> always appear in the same pattern as above, requiring 4 RETALLs no matter
>> how much time I give.
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>> self.files.class.Revclasshash
>>
>> where 'files' and 'class' are structures, and Revclasshash is an object
>
> I regularly have cases where I need two EXITs to get out of IDL. I wonder
> if that is related.
```

I'm sure it is related. My guess is a bug in garbage collection of heap variables. To check if that is the case, test your program in IDL 7.x. (Won't work if you used any of the new IDL 8 features, of course.)

BTW it is a good thing if the garbage collector also runs on EXIT. If I remember correctly, I think I had some issues with this in some previous IDL version regarding objects where temporary files were supposed to be deleted in the "cleanup" method. The cleanup method was _not_ called on EXIT, so I ended up with a bunch of temp files taking up space on my hard drive.

Yngvar

Subject: Re: One RETALL is not enough Posted by Gordon Farquharson on Wed, 31 Oct 2012 06:35:46 GMT View Forum Message <> Reply to Message

On Saturday, October 27, 2012 2:02:24 PM UTC-7, Mike Galloy wrote: > I regularly have cases where I need two EXITs to get out of IDL. I wonder

>

> if that is related.

I find that I need two exits to exit IDL when I am using DLMs.

Gordon

Subject: Re: One RETALL is not enough Posted by David Fanning on Wed, 31 Oct 2012 11:42:04 GMT View Forum Message <> Reply to Message

Gordon Farquharson writes:

> I find that I need two exits to exit IDL when I am using DLMs.

I got stuck in another funk doing some object programming yesterday, and had a chance to try the four RETALL trick. I believe it actually did help!

Cheers,

David

--

David Fanning, Ph.D. Fanning Software Consulting, Inc.

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

Sepore ma de ni thue. ("Perhaps thos speakest truth.")