Subject: Re: Hard crash
Posted by Jim Pendleton on Sat, 10 Jan 2015 01:13:53 GMT
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On Friday, January 9, 2015 at 12:31:39 PM UTC-7, Matt Haffner wrote:
> Jim (& Chris),
>
> No, the command line was fine. But I understand why now...
>
> Those log files were very helpful--I wasn't aware of those before. The stack track in there made it clear it was indeed trying to open a user routine somewhere. dtrace helped me ID a 'test.sav' that was trying to be loaded from the IDLWorkspace84/Default directory, which is why it was only crashing in eclipse--that directory isn't added to the command line IDL path by default.
>
> Trying the same thing from the command line with that file in the path does then give the same result, with a bit more error output:
>
> IDL> test
> % Wrong number of tags defined for structure: LIST.
> % Structure not restored due to conflict with existing definition: LIST.
> Segmentation fault: 11
>
> The file contained an old save of an object that does contain some LISTs buried in it's property hierarchy.
>
> Restoring the file does not crash IDL:
>
> IDL> restore,'./test.sav'
> % Wrong number of tags defined for structure: LIST.
> % RESTORE: Structure not restored due to conflict with existing definition: LIST.
> % Wrong number of tags defined for structure: LIST.
> % RESTORE: Structure not restored due to conflict with existing definition: LIST.
> % Wrong number of tags defined for structure: LIST.
> % RESTORE: Structure not restored due to conflict with existing definition: LIST.
>
> Looks like the save was in IDL 8.2.3. Did LIST's data structure evolve since then?
>
> None of this is critical for me to restore/retain... mostly morbid curiosity at this point. But let me know if it's useful to poke around further to characterize a bug.
>
> - Matt
>
> On Thursday, January 8, 2015 at 8:17:34 PM UTC-6, Jim P wrote:
>> On Thursday, January 8, 2015 at 3:34:31 PM UTC-7, Chris Torrence wrote:
>>> Hey Matt,
>>>
>>> That's weird. I still don't have any clue what could be happening for your bug. Regarding the original bug from Helder, it's fixed for IDL 8.4.1 - it now throws the following error:

>>> % Subscripts are not allowed with variable attributes.
>>>
>>> Cheers,
>>> Chris
>>
>> Is it the same behavior when running from command line IDL and from the Workbench?
>>
>> Are there any files named hs_err*.log created in the default directory when the IDL process exits?

I'll let Chris weigh in on the how and why, but yes the LIST data type definition has been updated. There will be an IDL Data Point blog post at the end of the month which talks about some of the unwanted side effects of this and how to avoid them.

A quick summary is that you should never use LIST(), HASH(), etc., in structure or class definition files when defining structure tags, and to always use the keyword SKIP=['LIST', 'HASH'], etc., when executing RESOLVE_ALL to create a new p-code SAVE file.

When *manually* restoring a SAVE file from an earlier version, you have the option of using the /RELAXED_STRUCTURE_ASSIGNMENT keyword to RESTORE. But if the SAVE file is loaded automatically, that's not the case.

Jim P.