Subject: Re: IDL falls to sleep!
Posted by mallors on Fri, 30 Apr 1999 07:00:00 GMT
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In article <3729AD4C.55BFDAC1@astro.uio.no>,
 Terje Fredvik <tfredvik@astro.uio.no> writes:
>
> One of my programs is generating large data arrays which is saved
> to file using the ordinary "save, [filename], [variable]" command.
> The program has worked excellent, but yesterday something strange
> started to happen; after saving a few arrays IDL went into sleep
> mode (according to the UNIX "top" command) after writing 4 bytes
> to file. Nothing happened (I waited several minutes), and IDL
> did not respond to ctrl-c, but had to be brutally killed. I
> started IDL once more, but the same problem showed up once again;
> IDL fell to sleep when saving (not the same file as last time!).
> I repeated this several times, but every time with the same result.
>
> Is this a problem caused by my code, by IDL or my UNIX alpha station?

One of my co-workers is also having this problem, although it's not
when writing files. He was doing many fits in a loop using SVDFIT.
At a random point in the loop, IDL halts (no CPU activity), CNTRL-C
does nothing, and IDL must be killed "brutally".
I traced the line at which it halted - it was at a call to
NR__SVDFIT (two underscores), which is an IDL internal routine,
so could not do anything else. We switched back to IDL 5.1
(instead of 5.2), and the problem seemed to go away. I never
contacted RSI, because I couldn't write a simple program to reproduce
the error. This is under Solaris OS.

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Robert S. Mallozzi   256-544-0887
                        Mail Code ES 84
Work: http://www.batse.msfc.nasa.gov/   Marshall Space Flight Center
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Subject: Re: IDL falls to sleep!
Posted by davidf on Fri, 30 Apr 1999 07:00:00 GMT
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Terje Fredvik (tfredvik@astro.uio.no) writes:

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> I repeated this several times, but every time with the same result.
>
> Is this a problem caused by my code, by IDL or my UNIX alpha station?

This problem reminds me of a...well, (heh, heh) *personal*
problem I've been having lately. I think it's caused by
old age and too many programming cycles. I'd recommend
a new product by Pfizer called...

Oh! It's the *computer* that's falling asleep!?

Oh, never mind. Perhaps you should upgrade to a younger
version of IDL. :-)

Cheers,

David

--
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Fanning Software Consulting
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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: IDL falls to sleep!
Posted by mallors on Sun, 02 May 1999 07:00:00 GMT
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In article <7gh5o8gmv1@nnrp1.dejanews.com>,
 throop@colorado.edu writes:
>
> Praise the lord! RSI has tried to convince me that I am the only one in the
> world having this problem with 5.2, and that it has something to do with my
> installation.
>
> I have experienced this problem on three Solaris machines under IDL 5.2. I
> cannot reproduce the problem using 5.0.3 on the two machines that have it

> installed. The systems are an Ultra 5, Ultra 10, and Sparc 10. I was unable
> to reproduce the problem in NT.

We are using an Ultra-1, OS version = Solaris 2.6

> For background, my program executes about 10^5 iterations through a set
> of matrix transformations. It's not writing any files, and I don't believe
> I use the NR__SVFIT routine that Robert mentions above. Memory usage is
> ~ 50 MB, and I get the same behavior from IDL and IDLDE. In the former,
> ctrl-c will sometimes give the 'Interrupt encountered' message, not always.

I do not believe it is the actual call to NR__SVDFIT that is causing
IDL to halt because my colleague replaced SDVFIT with another 3rd
party fitting routine. His code still halts at some random point
in the fitting loop under 5.2, but appears work fine under 5.1.

Also, CNTRL-C usually does print the "Interrupt encountered" message
(but does not interrupt).

Memory usage is not an issue - the code is using only about 20 mb,
and is not allocating any more memory in the loop that causes
IDL to halt.

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Robert S. Mallozzi   256-544-0887
                               Mail Code ES 84
Work: http://www.batse.msfc.nasa.gov/   Marshall Space Flight Center
Play: http://cspar.uah.edu/~mallozzir/   Huntsville, AL 35812
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Subject: Re: IDL falls to sleep!
Posted by throop on Sun, 02 May 1999 07:00:00 GMT
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In article <7gcvla$393$1@hammer.msfc.nasa.gov>,
  mallors@ips1.msfc.nasa.gov (Robert S. Mallozzi) wrote:
> In article <3729AD4C.55BFDAC1@astro.uio.no>,
>   Terje Fredvik <tfredvik@astro.uio.no> writes:
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Praise the lord! RSI has tried to convince me that I am the only one in the
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cannot reproduce the problem using 5.0.3 on the two machines that have it
installed. The systems are an Ultra 5, Ultra 10, and Sparc 10. I was unable
to reproduce the problem in NT.

I have a long-ish (2000-line) code that consistently causes this problem,
after 1-10 hours of computation. I've sent it to RSI, who says they're
unable to reproduce it. I don't know why this would be, but at this point
they tell me there's nothing to be done. If someone else has a
self-contained program that demonstrates this situation -- or general
observations about it -- _please_ send it to RSI. E-mail me and I'd be happy
to pass along my code and my exchanges with RSI support.

For background, my program executes about 10^5 iterations through a set
of matrix transformations. It's not writing any files, and I don't believe
I use the NR__SVFIT routine that Robert mentions above. Memory usage is
~ 50 MB, and I get the same behavior from IDL and IDLDE. In the former,
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-Henry

| Henry Throop   throop@colorado.edu   (303) 492-1628 |

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| University of Colorado, Boulder   80309-0392 |

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Subject: Re: IDL falls to sleep!
Posted by L. Paul Mix on Mon, 03 May 1999 07:00:00 GMT
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We too have observed IDL hanging on large applications.
RSI has been unable to reproduce the results.

We have observed the problem most frequently on multiple processor systems.
(10 processor Sun and 4 processor HP)
Apparently all of the RSI systems have single processors.

--
L. Paul Mix
Distinguished Member of the Technical Staff
Electromagnetics and Plasma Physics Analysis

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