
Subject: Re: Memory leak ?

Posted by on Mon, 11 Sep 1995 07:00:00 GMT

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This was originally sent to comp.sgi.admin/bugs.

I post it here as well - maybe some other

IDL users have experienced similar things.

"Frank J. Jørgensen" <frank@spacetec.no> wrote:

> I have a strange behav. on my Indigo 2 running IRIX 5.3

> (192 MB RAM)

>

> I run an IDL session which accesses a shared library written in C

> pluss two other small processes doing data input from external devices.

>

> After some time, typically a few hours, the IDL application terminates

> while doing a SPAWN command (i.e. a fork/exec combination),

> and the syslog claims : Out of logical swap space.

>

> The strange thing is as follows:

> The error happens even if we exit the application at regular intervals to

> free memory.

>

> By monitoring the swap space manager we can see that the amount

> of memory reserved by user applications is increased after every

> session of our application. The only way to get it back (?)

> is to reboot the Indigo.

>

> What is happening?

> Where in the world is the memory going?

> Who is reserving it when we are not running ANY user applications?

> except the swap space manager?

>

> Please help me out here, I'm out of ideas!

>

Additional info: The IDL session uses a moving window display,

(compound widget by me) where I store images of up to

500x20000 rgb pixels. (~ 30 MB). But still, when the

IDL session dies, X should free this memory - right ?

--

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/* (...with the bravery of being out of range!) */

Subject: Re: Memory leak ?

Posted by on Tue, 19 Sep 1995 07:00:00 GMT

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nmw@ion.le.ac.uk (Nigel Wade,Physics,3568,,) wrote:

>
[Quote of my original post deleted...]
>
>
> When you quit IDL what happens to those two small processes which are
> doing data input?
>
> If you do a "ps -el" command to look at everything on the system, does
> any process show up as a memory hog? Look at the SZ:RSS column, the
> first number is the size of the process in 4Kb blocks.
>
> We use IDL extensively on SGI kit and have not come across this problem.
> IDL can be a memory hog, but it does give it back to the system when it is
> exited (at least it always has done for us so far). We are running IRIX 5.2
> though, so there might be a difference there.
>
> --
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>

I got a reply from SGI on my original post, and they say it's a known bug in IRIX 5.3. Your experience might indicate that the problem is not present in IRIX 5.2 - if that is the case I will downgrade our system. I have asked SGI if 5.2 has the same problem, and I'll post the reply here when it arrives.
Until then I strongly suggest IDL users NOT to upgrade to 5.3

Heres the mail I got from SGI:

>
> Note however that displaying the image with imgview does NOT
> reserve memory between sessions. This might indicate that
> there is a bad combination of a non-robust Xserver and IDL's way
> of using X-resources.
>
> But Martin experienced similar problems without using IDL,
> so: SGI, don't blame it all on RSI, I do believe you play
> a part in this mess too! :-)

I don't blame anyone. Before I go and blame it on bug # 254412
I want to make sure it's not something else.

Here is a work around for 254412 that was posted a while back !

Insert the following lines in `/usr/bin/X11/X` just before the `exec` to the `Xsgi` and `Xsgi_d`

```
MALLOC_CONFIG=2:mm_minunmapsize=2097152:mm_szunmapshift=21:m
m_minunmapsrch=0\
:mm_xf[0].mm_flindx=8:mm_xf[0].mm_szshft=5:mm_xf[1].mm_flind x=2055\
:mm_xf[1].mm_szshft=9:mm_xf[2].mm_flindx=2065:mm_xf[2].mm_sz shft=20:mm_flsearh=3
0
export MALLOC_CONFIG
```

Add large amounts of virtual swap.

IT DOES NOT FIX THE PROBLEM !! It prolongs it. We have a patch in the works being tested at a couple of customers.

The memory is actually not being used, it's not a leak in the traditional sense, it's more an accounting problem/fragmentation problem that only shows up with some special sizes and allocation sequences that seem to be more frequent than when we originally tested it.

Apologies for the inconvenience, it's a top priority problem. I can't make commitments to this since this problem belongs to someone else and I cannot speak for them.

—

Internationalization R&D
Graphics is cool
Internationalization c'est magnifique
Opinions mine etc ...

Frank.

—

```

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/*      (...with the bravery of being out of range!)      */

```