Subject: IDL memory usage
Posted by Gary Fu on Wed, 28 May 1997 07:00:00 GMT
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Hi,

I monitored the memory usage on the following two IDL cases.
In case 1, the IDL process takes 31MB of memory (8MB of IDL
reserved + 24MB of data, reasonable). However, in case 2,
it takes 47MB of memory. Anyone knows why and is there a way
to fix the problem ?

Thanks.

Gary

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Case 1:
a = indgen(2000,4000)
a = a(*,0:1999)

Case 2:

a = indgen(2000,4000)
ia = indgen(2000) * 2
b = a(*,ia) ; OR b = TEMPORARY(a(*,ia))

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* Gary Fu, GSC (301) 286-7107 *
* email : "gfu@seadas.gsfc.nasa.gov" *
* NASA/Goddard Space Flight Center *
****

Subject: Re: IDL memory usage
Posted by Craig Markwardt on Tue, 13 Jan 2004 23:24:06 GMT
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Michael Wallace <mwallace.removethismunge@swri.edu.invalid> writes:
> Is there any way to set a maximum limit on the amount of memory an IDL
> process will use even if the machine running the code has more memory
> available? I have a process which uses a fairly constant amount of

> memory (in IDL), but IDL keeps claiming more and more memory from the OS
> as time goes on. I'd just like to cap the amount of memory IDL can get
> its grubby little hands on even if it means that my code will execute a
> little slower.

If you are running on Unix, you can limit the memory consumption by using the limit or ulimit commands, depending on the shell you are using. You would run one of these commands in the shell before running IDL.

However, this may not have the desired behavior. Once the program reaches the limit, any further memory allocations will fail and may wreak havoc on your program. It won't just run "slower."

Good luck,
Craig

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Craig B. Markwardt, Ph.D. EMAIL: craigmnet@REMOVEcow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
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Subject: Re: IDL memory usage
Posted by Michael Wallace on Wed, 14 Jan 2004 01:04:13 GMT
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> However, this may not have the desired behavior. Once the program
> reaches the limit, any further memory allocations will fail and may
> wreak havoc on your program. It won't just run "slower."

In this particular case, I don't believe anything will be creating havoc. I did a little test. First, I ran IDL without much else going on. Eventually, it filled up most of the available memory. Once finished, I opened up a bunch of other programs which chewed up a good chunk of memory. I then ran my same IDL program again. It again filled up most of the available memory, but it had nowhere near the amount that it had the first time around (since other programs had already claimed some of that) and it still executed in about the same time. So, this led me to conclude that I might be able to safely limit the IDL process and not run into any problems. Also, I was periodically printing out the IDL memory usage from within IDL and it leveled off early on and never grew over the rest of the execution even though you could watch more and more memory being taken from the OS during this same time.

I will try limit/ulimit and see what happens. Thanks.

Mike

Subject: Re: IDL memory usage
Posted by R.G. Stockwell on Wed, 14 Jan 2004 15:07:09 GMT
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"Michael Wallace" <mwallace.removethismunge@swri.edu.invalid> wrote in message news:bu1m97$7jd$1@nntp1.jpl.nasa.gov...
...
> I have a process which uses a fairly constant amount of
> memory (in IDL), but IDL keeps claiming more and more memory from the OS
> as time goes on. ...

IMHO the preferred solution would be to find the
programming error that is causing the memory leak.
I run IDL for weeks and weeks with no problem.
Check your heap, do you have pointers or objects
that are not being cleaned up?

Cheers,
bob
