
Subject: Idl is greedy, once it gets some memory it will NOT release it.

Posted by [rxr](#) on Mon, 15 Jan 1996 08:00:00 GMT

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Hello all:

I have a question on IDL's memory management. My problem could also be in the swap space management in the SUNOS and IRIX 5.3, but I doubt it.

The issue is, after an array is deleted in IDL, the memory it occupied does not seem to be released (is the impression you get when you make an enquiry on the swap space from the O/S (swap -s in IRIX)) until the IDL session is exited; but seems to have been when you make an enquiry on the memory in IDL, using help, /memory.

The following is a transcript of an hypothetical session.

1. swap space before IDL is started.

andaman 21% swap -s

total: 1.98m allocated + 45.34m add'l reserved = 47.32m bytes used, 633.31m bytes available

andaman 22% idl

IDL. Version 4.0 (IRIX mipseb).

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% Compiled module: PSOFF.

% Compiled module: PSON.

% Compiled module: PSONC.

% Compiled module: TEK4105.

% Compiled module: PSOFFCLOSET.

% Compiled module: PSOFFPLP.

% Compiled module: WPORT.

raghu startup completed

2. swap space after IDL is started.

IDL> \$swap -s

total: 1.98m allocated + 46.64m add'l reserved = 48.61m bytes used, 632.02m bytes available

3. help on memory.

IDL> help,/memory

heap memory in use: 76495, calls to MALLOC: 139, FREE: 34

4. Allocate a large array

IDL> filter14=fltarr(182,161,365)

5. enquire on swap; swap should and has increased.

IDL> \$swap -s

total: 1.96m allocated + 87.45m add'l reserved = 89.41m bytes used, 591.22m bytes available

6. enquire on memory; memory should and has increased.

IDL> help,/memory

heap memory in use: 42857598, calls to MALLOC: 144, FREE: 35

7. create another large array

IDL> filter15=filter14

8. enquire on swap; swap should and has increased.

IDL> \$swap -s

total: 3.98m allocated + 126.27m add'l reserved = 130.26m bytes used, 550.37m bytes available

9. enquire on memory; memory should and has increased.

IDL> help,/memory

heap memory in use: 85638690, calls to MALLOC: 149, FREE: 36

10. Delete one of the large variables.

IDL> delvar,filter15

11. enquire on swap; swap should have but has NOT decreased.

IDL> \$swap -s

total: 3.98m allocated + 126.27m add'l reserved = 130.26m bytes used, 550.37m bytes available

12. enquire on memory; memory should have and has decreased.

IDL> help,/memory

heap memory in use: 42857772, calls to MALLOC: 154, FREE: 39

13. exit IDL

IDL> exit

14. enquire on swap after exiting IDL; swap should have and has decreased.

andaman 23% swap -s

total: 3.98m allocated + 43.34m add'l reserved = 47.33m bytes used, 633.30m bytes available

Any suggestions.

raghu.