Subject: Re: memory allocation on Macs
Posted by Keflavich on Thu, 26 Jun 2008 19:14:01 GMT
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I have some follow-up questions on this discussion....

I'm running into the errors described above, I believe:
idl(42359,0xa0281fa0) malloc: *** mmap(size=112533504) failed (error code=12)
*** error: can't allocate region
*** set a breakpoint in malloc_error_break to debug
% Unable to allocate memory: to make array.
  Cannot allocate memory

so this appears to be a limit imposed by the OS. What I'm not entirely clear on is, first, does that 4GB limit include virtual memory?

Then... second... any tips on getting around gigantic memory issues? I'm running into them using the Goddard astron library for coordinate transformations. The big problem is (at least partly) that my very large float arrays get converted into doubles because all of the astron packages use doubles. There's no way to force the arrays to stay in the smaller version, right?

Would it be possible to do something like write the necessary files to hard disk, spawn a new IDL, have it process the data (assuming that it doesn't independently exceed 4gb...) and write that back? Seems complicated to me, so I don't really want to attempt it until I've ruled out other possiblities.

Thanks,
Adam