Subject: Solaris and IDL problem
Posted by Kevin Reardon on Tue, 11 Jul 1995 07:00:00 GMT
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I am having some problems with IDL running on under Solaris 2.4 and was wondering whether anyone else was having similar problems, or if it was a problem with the OS instillation here.

The problem is that in running some IDL programs, there seems to be an excessive amount of paging and disk I/O occuring (i.e. I/O not explicitly called for in the IDL program). All processing will cease and the computer will page continuously for 100-200 seconds! On a non-Solaris machine (SunOS 4.1.3) the job proceeds with almost no paging or disk I/O. This means a 30 MHz non-Solaris machine is 50% faster than a 40 MHz Solaris machine on the same task. Both have an identical amount of RAM (64 Mb). I have run the program on a Solaris machine with 96 Mb of RAM with the same excessive-paging results, so I don't think it is as simple as a problem with insufficient memory. Also, single or double processor doesn't make a difference.

There is a further curiosity in the behavior of the paging. The program I used to test the machines used TRIANGULATE and TRIGRID to remap an image into a flat image plane. I call these procedures successively for multiple images, in a FOR loop. In the first two iterations of the loop, there is no paging activity even on the Solaris machines. However, in subsequent passes through the loop, the excessive paging begins, even though I am using the same arrays on each pass through the loop.

So it appears there is some incompatibility between IDL and Solaris 2.4. We are currently using IDL 4.0, but I think I noticed the same behavior with 3.6. Is IDL not freeing memory properly with the new OS? But it seems that this would be a much more noticable problem for anyone with iterative loops.

A related problem, I think, is that numerous times with Solaris, when trying to display an image, IDL has completely hung. This usually happens when there is a lot of disk I/O going on (I assume the image is being read out off of swap space on disk), and only part of the image gets displayed, sometimes with the same slice repeated. It is as if part of the image is lost, the OS knows it sent it, but IDL never got it, and by god, it is going to sit there and wait until it does. The only thing to do is kill the IDL session, which is unsatisfactory, to say the least.

So, has anyone else had a similar problem? Can anybody help save me from the curse of Slow-laris and/or IDL?

aloha,
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