Subject: Poor comparable performance for IDL on Solaris vs Vista or Snow Leopard
Posted by demian on Mon, 22 Feb 2010 17:15:03 GMT
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All,

I support ENVI/IDL users with the Geography Department at the University of Utah. We've had a few reports that some users with PC and Mac laptops are seeing performance that is 10 to 30 times better than what they see on our Sun servers. By my understanding, both of the Sun servers should be able to out-perform the laptops. Is there a known explanation for the disparity that we see?

Both servers are largely quiet and have most cycles available for user processing. One server has 4 ~1GHz processors, 32GB of RAM and runs Solaris 8. The other server has 4, 8core ~1GHz processors, 64GB of RAM and runs Solaris 10. We've tested to see if there is a performance difference between local vs SAN storage on these servers and cannot explain the difference.

The PC laptop is a Dell running Windows Vista with an Intel T6400 2.00 GHz processor and 4.0 Gigabytes of RAM. I use ENVI/IDL version 4.6.1. Testing times are 6.8 seconds on the PC and 221 seconds on Unix server.

The Mac laptop is a 64bit dual core ~3GHz w/ 3GB RAM running SnowLeopard and IDL 7.1.
Testing times between this laptop and the servers is ~10x faster on the Mac.

We've tried modifying the .pro file to use FLOAT versus LONG variable declaration as well as using running idl -32 rather than 64bit mode, but do not see a marked difference.

The processing that is done is not data intensive and is largely simple math. Any suggestions on why IDL is so much slower on Solaris?

Thanks,

Demian