
Subject: Best platform for IDL 6.2?

Posted by [bas](#) on Wed, 16 Nov 2005 02:15:58 GMT

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Hi group:

I was curious what platform seems to be the best for running IDL. I have read some of the topics and it seems some platforms have problems.

Currently I run a Apple with OS10.4. I was thinking of upgrading to a Sun or SGI workstation. I just wanted some opinions and any experiences you have had with IDL on your platforms.

Thanks
bas

Subject: Re: Best platform for IDL 6.2?

Posted by [Wolf Schweitzer](#) on Fri, 02 Dec 2005 13:44:25 GMT

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I have experience running IDL under Mac OS X on Dual G5 Powermac, under OS X on various G4-configs (Powerbook, Powermacs), we currently run IDL also under AIX on an IBM Intellistation 275, and I'm at this moment waiting for a 2xproc-AMD-Opteron-254 machine (I ordered a Fujitsu Siemens Celsius v830 to replace my old G4 Powermac at home) that I'll set up with Linux and IDL.

I like Mac OS X for it's desktop productivity and seamlessness, and I like it as X-Windows-Client - but Mac OS X does not have full 64-bit capability (so you can't get IDL to run more than 2GB-processes) and even a Dual-Processor G5 Powermac is considerably slower than, say, an IBM Notebook or a cheap Acer Veriton desktop computer (which we tried in evaluating our options). In terms of it's performance, even fast Macs really are too slow for the price they cost. In terms of combined desktop software-productivity and hardware, Mac OS X is luxuriously nice.

Our IBM workstation contains PowerPC-processors (two dualcore Power4-processors), so that's basically the same as the G5-processors (also produced by IBM). While to no surprise the IDL stuff doesn't really run much faster on the IBM workstation than on the G5 (the little Apple brothers of the same processor), the 64-bit capability with the 12 GB RAM really, really, really make a big difference (volume data ranging between 400MB-9GB) - so it is possible to work with a lot more data. Currently, I prefer to work on IDL on the IBM workstation, and simply FTP any data on/from it from the Mac.

My colleague (who shares the workstation with me; we both probably use

it ~ 20-30% of the time at the moment) and I both use X-windows to access this workstation, and it's a really useful setup. However, installing other packages (The Gimp, ..) under Unix may require a lot more patience than installing software on an Apple Macintosh computer, depending on the type of software (even though some is really simple rpm -i .. stuff not worth worrying about).

Currently I would recommend getting any machine that runs AMD 64-bit-processors under Linux (or if you like Windows...) and an IDL license for that type of machine (have you checked <http://www.monarchcomputer.com> - that is where I would shop if I was in the USA). If your "desktop productivity does require" (i.e. "your finances allow") an additional Mac OS X, you could maybe get the slowest Mac that still does what you need it to do - like a smaller G4 Powerbok, a G4 iBook, or maybe an iMac G5 as they look trendy; currently I'd wait until January to see what's up with Apple. I would not get Sun (like Apple, too expensive for the performance), or SGI (..), and I'd definitely stay away from Windows unless you are absolutely sure you need Windows for other reasons. I'm sure Apple has the potential to release some wonderfully fast machines running a full 64-bit-OS and IDL at a prime speed in, maybe, mid 2007 - it's only that they're not there yet.

Subject: Re: Best platform for IDL 6.2?

Posted by [JD Smith](#) on Mon, 05 Dec 2005 23:16:57 GMT

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On Fri, 02 Dec 2005 14:44:25 +0100, Wolf Schweitzer wrote:

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The reason IDL under OSX on PowerPC is so slow compared to Intel is the GCC compiler used, which has poorer optimizations for this chip family. A dual G5 should easily hold its own against dual AMD setups,

were it not for this compiler gap. The PowerPC chips have very good floating point performance, which dominates IDL benchmarks (they also have relatively weaker integer performance, which is why AMD/Intel can dominate in "office" type applications). That, and of course the underutilized but powerful AltiVec optimization, explain why G5 duals dominate in Photoshop benchmarks. If RSI had Adobe engineers optimizing their code for Macs, they could easily outperform X86 hardware. Of course, this is all a moot point, because starting sometime in 2006, Macs will be running Intel, and Linux vs. Windows vs. Mac on IDL will be much less interesting. I expect Linux and OSX performance to be very similar on similar hardware at that point, as they'll be using the exact same compiler targeting the exact same instruction set.

JD
