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:

> 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. It terms of combined desktop
> software-productivity and hardware, Mac OS X is luxuriously nice.

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