Subject: Re: Sorry Re: which OS is faster for idl?
Posted by bryan.jones on Sun, 26 Oct 2003 20:06:02 GMT
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Yunxiang Zhang <yxzhang@stanford.edu> wrote in message
news:<Pine.GSO.4.44.0310221946570.28591-100000@elaine1.Stanford.EDU>...
> Sorry, Mac guys. Maybe my title is somewhat misleading here. This is
> because I thought it's hard to compare between different hardware
> configurations. That is also why I am a bit exciting when I found a
> multiboot P4. Of course you guys are welcome to talk about your
> experiences over different platforms. Remember there're
> Solaris/HP-UX/IRIX/AIX users.;-)
>
> Anyway, any story about performance testing related to idl is highly
> encouraged.^!^

I actually am not surprised at the performance difference between XP
and the gentoo distro as one might not have access to system specific
tuning with gentoo or potentially other linux distros and I would not
be surprised if non-Intel chipsets did not perform as well due to the
same issues. So, to answer your question immediately, I am sure that
between Linux and Windows, Windows on Intel is probably the faster
solution. However, as David alluded to, there is a faster platform
with which to run IDL on, but the IDL specific interface on that
platform is not all it could be.

As for comparison of platforms, right now our code is not set up to
perform our calculations in batch mode, so we are not running code
that takes hours to complete, but I can comment on code runs of a few
minutes or less in a qualitative sense as opposed to giving you
"benchmark numbers" as I have never really paid attention to exact
timings. I should say that very few folks do proper benchmarking
studies, and most of the time, performance claims are dubious and can
depend upon compiler used for the OS, memory availability and
performance, hard drive performance, CPU/bus interactions etc... and
above all, how the code you are using interacts with all of those
factors. I have used IDL on Windows, Macs (OS 9 and OS X), and SGI's
IRIX on a number of different hardware configurations, so I feel I can
comment on a number of factors. As far as raw performance goes, I was
always happy with the SGI Octane's performance (300 Mhz R12000 with
1GB of RAM) running IDL until I ran code on a fast Pentuim 4 (2.8 Ghz
with 1GB of RAM) which was truly fast and had a much better IDL GUI
code environment with color coding available etc... than the
traditional *NIX X-windows paradigm. I had also used IDL on OS 9 from
Apple running on G3's and the performance was so so, but the GUI was
like the Windows GUI and thus much better than the *NIX environment.
Granted this was not much of a comparison given the age difference of
the machines, but it was the best comparison I had of more modern

hardware until the OS X machines showed up. The dual Ghz G4's (1.5 GB RAM) performance with IDL did not match that of the 2.8 Ghz P4 and the X-windows interface is your standard *NIX X-windows interface, but there were other productivity gains that kept it on my desk. Now however, the dual G5 (2.0 Ghz and 2 GB RAM) easily appears to eclipse the performance of the 2.8 Ghz P4. But, we are still dealing with an inferior IDL specific GUI interface than we have available running on Windows. All in all, I believe I will stick with the G5 machine due to its performance, better security, ease of use and dramatic increases in productivity in other areas, but I am NOT happy with the IDL X-windows interface, and like other X-windows interfaces, interface widgets often have to be tweaked if porting code from Windows versions of IDL.

So, to clarify your question as to the best performance available in desktop, the dual G5 exhibits the highest performance of any desktop machine I have yet used, and if any of your code can be used with vector math, the Apple machines will really outperform other systems. That said, if I were recommending an IDL system for a non-*NIX user, unless that user was using the system for more than just IDL and they were running code that would complete its run in a few minutes or less, and could ensure that the system is regularly updated with the latest security patches, I would probably pick a Windows machine to run IDL on due to the nicer interface issues. This recommendation will of course change given a more consistent user interface between the OS X and Windows code base and for any other users who are not scared by the command line or permissions issues, or need their systems for more than just running IDL, I would heartily endorse the Macintosh running OS X, particularly now that an X-windows environment is running natively in the OS with X11.

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