
Subject: Re: Sorry Re: which OS is faster for idl?
Posted by [JD Smith](#) on Fri, 24 Oct 2003 00:40:23 GMT
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On Thu, 23 Oct 2003 16:42:59 -0700, Karl Schultz wrote:

> "R.G. Stockwell" <noemail@please.com> wrote in message
> news:0RTIb.1644\$4V5.19167@news.uswest.net...
>>
>>>> Yunxiang Zhang writes:
>>>>
>>>> > I happened to have a chance to run a time_test on a multiboot
> machine
>>>> > today. I did time_test, time_test2 & time_test3.
>> Linux(gentoo,2.4.20-r6
>>>> > kernel for P4) is 20~30% slower than XP. What do you guys think
>>>> > of
>> this?
>>>> > Any similar test has been done by anyone of you?
>>
>>
>> A while ago I came to a similar conclusion. A 1.13 ghx win2000 laptop
>> was faster than my 1.4 ghz linux AMD. There must be compiler
>> optimizations available on the ms platforms that are not there on the
>> other platforms.
>>
>>
> Agreed.
>
> I ran the same tests on my dual-boot (XP/RedHat 8.0 2.4 kernel) and
> measured linux to be about 15% slower.
>
> Dual boot machines are great for tests like these because they keep a
> lot of the variables constant and you therefore don't have to apply CPU
> clock speed adjustments and wonder about differences between cache
> sizes, CPU architecture, and other chipset issues.
>
> I also compared the times on linux with and without an X server running
> and, as expected, it made no significant difference.
>
> So, it is a pretty fair bet that the quality of the compiled code,
> efficiency of function parameter passing conventions, and speed of the
> runtime library are probable contributors to the observed difference.

This seems to me to be almost entirely a compiler issue. I know you use very few of gcc's built-in optimizations: have you investigated whether this speed disparity can be mitigated or reversed with more aggressive

optimization on the Linux side? Also interesting would be the per-test discrepancy between Linux and Windows: is it a fairly general penalty, or are there just a few "hot spots" where poorly performing library code might be indicated? I recall this was true for the OpenGL performance on Linux vs. Windows (which is far more driver-dependent than anything else): one test ran 15x slower on Linux than on Windows, dominating the total elapsed time. Otherwise Linux compared quite favorably (faster on a majority of the tests).

JD
