
Subject: Re: IDL and 64bit Linux
Posted by [JD Smith](#) on Thu, 19 Aug 2004 17:02:12 GMT
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On Thu, 19 Aug 2004 09:19:44 +0100, Nigel Wade wrote:

- > We are in the process of finding a replacement for our ageing Origin 2000
- > system. One absolute requirement is that it be able to run IDL.
- >
- > We are looking at SMP systems and 2 likely contenders are the Sun Fire
- > V40z (hopefully an 8 processor version will be available sometime) and the
- > sgi Altix 350. The Sun Fire uses Opteron and the Altix Itanium 2, neither
- > of which is supported by IDL.
- >
- > I've mailed RSInc to ask them if they are likely to include support for
- > either on Linux in the near future, but so far I've not received any reply
- > at all.
- >
- > So, I'm hoping that someone here might have tried IDL on one of these
- > platforms, to test the water, and can tell me whether it runs, and if so,
- > how well it performs against a 32bit processor (I'm concerned that the
- > Itanium has no native 32bit capability and may run IDL very slowly in
- > 32bit emulation, the Opteron is very much an unknown quantity).

See:

<http://www.rsinc.com/services/techtip.asp?ttid=3635#current>

Relevant quote: "An announcement as to availability (post-IDL 6.1) [of 64-bit IDL for Linux] will be forthcoming following further investigation."

I've heard lots of rumbling about getting a 64bit IDL for linux, which could address some rather large chunks of memory, and perform long64 integer arithmetic at healthy speeds. Anyone have use for fast 64bit integer arithmetic? Do 64-bit doubles ("double doubles") have any appeal to anyone?

JD

Subject: Re: IDL and 64bit Linux
Posted by [K. Bowman](#) on Thu, 19 Aug 2004 18:29:19 GMT
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In article <pan.2004.08.19.17.02.12.496874@as.arizona.edu>,
JD Smith <jdsmith@as.arizona.edu> wrote:

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- > could address some rather large chunks of memory, and perform long64
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What I really want is 1) large files and 2) large memory address space. 64-bit floats are generally fine for my needs. Of course, efficient 64-bit integer arithmetic would be needed for address and index calculations.

Ken Bowman

Subject: Re: IDL and 64bit Linux
Posted by [JD Smith](#) on Thu, 19 Aug 2004 19:05:16 GMT
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On Thu, 19 Aug 2004 13:29:19 -0500, Kenneth Bowman wrote:

- > In article <pan.2004.08.19.17.02.12.496874@as.arizona.edu>,
- > JD Smith <jdsmith@as.arizona.edu> wrote:
- >
- >> I've heard lots of rumbling about getting a 64bit IDL for linux, which
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- > What I really want is 1) large files and 2) large memory address space.
- > 64-bit floats are generally fine for my needs. Of course, efficient
- > 64-bit integer arithmetic would be needed for address and index
- > calculations.

By 64bit double, I mean 64bit floats (some call them quadruples). Is anyone using 64bit integer or floating-point arithmetic directly? IDL currently has no "quadruple" support, as far as I can tell.

JD

Subject: Re: IDL and 64bit Linux
Posted by [Nigel Wade](#) on Wed, 01 Sep 2004 08:33:29 GMT
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On Thu, 19 Aug 2004 10:02:12 -0700, JD Smith wrote:

> On Thu, 19 Aug 2004 09:19:44 +0100, Nigel Wade wrote:
>
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>> system. One absolute requirement is that it be able to run IDL.
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> integer arithmetic? Do 64-bit doubles ("double doubles") have any
> appeal to anyone?
>
> JD

Sorry, I've been on holiday, so haven't had chance to keep up with this (I really shouldn't post questions just before I go away).

I've read the official RSI position on Linux as stated on their web site, and it's not clear where they intend to go at the moment. The gist of the current position on 64bit Linux seems to be that "it's time to start thinking about it", so not much hope for a quick solution.

I've had more positive feedback by private email that IDL should run OK on the Itanium using the latest IA32EL at up to 85% of the CPU performance. I've heard nothing about AMD64 platforms, though.

--

Nigel Wade, System Administrator, Space Plasma Physics Group,
University of Leicester, Leicester, LE1 7RH, UK

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Phone : +44 (0)116 2523548, Fax : +44 (0)116 2523555

Subject: Re: IDL and 64bit Linux

Posted by [Rick Towler](#) on Wed, 08 Sep 2004 00:08:17 GMT

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Nigel Wade wrote:

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>>

>>

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>>> of which is supported by IDL.

> I've had more positive feedback by private email that IDL should run OK on
> the Itanium using the latest IA32EL at up to 85% of the CPU performance.
> I've heard nothing about AMD64 platforms, though.

Sheesh, I had a nice email typed out and a rare but o-so-fun BSOD wiped
it out...

The gist of it was that with the introduction of the 64bit
Prescotts/Xenons that I find it unlikely that the Itanium will find its
way onto enough desktops to justify native IA64 support for IDL. Since
AMD64 and iX86-64 are "broadly compatible" and WinXP 64 set for release
next year, I see the x86-64 market hitting the threshold for support far
sooner. So I would bet your 64 bits on the Opteron.

As for AMD64 compatibility, I run 32bit IDL on Athlon64 chips in 32bit
WinXP and 32bit Linux w/o issue. I see no reason why it wouldn't run on
64bit linux, just haven't gotten around to it.

And your 8 way SunFire should be out next year:
<http://www.theinquirer.net/?article=18169>

-Rick
