Subject: Intel® C++ Compiler for Linux
Posted by Anar Manafov on Tue, 29 Mar 2005 20:30:17 GMT
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To come a abreast of discussion of upgrading GSI farm to 64b CPU, I would like to start a discussion in order to find somebody who is interested to get Intel® C++ Compiler for Linux for GSI.

If you switch to this compiler you will get 17% Higher floating point operation performance and 26% Higher Integer performance. And take in account that those facts in comparing to GCC 3.4.1 (which is not EVEN used at GSI or CERN, yet)!!!
And the main: BETTER C++ processing!

Only by switching the compiler you will get almost the same performance as you can get changing the CPU. But the compiler cost MUCH MUCH less than ONE CPU!
EVEN, THE COMPILER IS FREE for non-commercial software development

Using this compiler you will find the problems in your code of which you even didn't know!
Quote:
Standards Compliance:
-Intel C++ Compiler for Linux supports:
-GNU inline ASM for IA-32 architecture
-IA-32 support for C++ ABI object model
-ANSI C/C++ and ISO C/C++ standards

Here some Product Features

Is there anybody interested to get it for GSI development?

We can discuss and maybe propose this idea to our steering managers! to get and install this compiler as a default GSI Linux compiler or as optional one.

We obviously will gain valuable performance and QUALITY of our software with less money in comparing to CPU cost.

If we get the latest CPU it won't change the quality of software!! But better compiler WILL!

Better compiler – it is like better tool, using which, we can bring software quality to higher level.

I've been always thinking about software! This is the FIRST what should be changed to get higher performance and HARDWARE is only the last!
If program is trash it will remain to be so even with 10 GHz CPU!

Please, respond, your opinion will be very much appreciated!!!

Subject: Re: Intel® C++ Compiler for Linux
Posted by Christopher Huhn on Wed, 30 Mar 2005 08:23:39 GMT
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If you take a look at http://www.intel.com/software/products/noncom/faq.htm, you'll find that a central installation at GSI will most probably not fall under this license:

Quote:
Q. I am engaged in research projects. Can I qualify to use the noncommercial product?
A. If you, as an individual, are receiving any form of compensation for the research project (i.e., you receive a salary, or funding, etc.) you do not qualify for a non-commercial license.

The "Academic License" seems to be more appropriate:

Quote:For degree-granting institutions of higher learning whose primary purpose is to provide education to the general public, e.g., college and university, and to faculty members, faculty

of academic eligibility for these discounted prices.

Anyhow someone has to decide to actually buy the software (maybe the DV-Ausschuss?). The

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Subject: Re: Intel® C++ Compiler for Linux
Posted by Anar Manafov on Wed, 30 Mar 2005 10:00:41 GMT
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Thank you, Christo!

From you point of view, do you think it is possible to propose the compiler? And is it worth it? What would be the steps to do so?

Subject: Re: Intel® C++ Compiler for Linux
Posted by Christopher Huhn on Wed, 30 Mar 2005 13:54:47 GMT
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Anar Manafov wrote on Wed, 30 March 2005 12:00
From you point of view, do you think it is possible to propose the compiler? And is it worth it? What would be the steps to do so?

My recommendation would be to buy a few licenses and see how it works out. Performance and software quality assurance aspects are surely woth it. Anyhow I do not feel like beeing in the position to make this decision.

Maybe one (me?) could set up a compile (batch) farm to keep the number of needed licenses as low as possible ...
