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Subject: Updated and new benchmarks

Posted by [mirek](#) on Fri, 14 Mar 2008 11:58:27 GMT

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I have adjusted numbers in U++ vs C++ std:: benchmarks

[http://www.ultimatepp.org/www\\$suppweb\\$vsstd\\$en-us.html](http://www.ultimatepp.org/www$suppweb$vsstd$en-us.html)

and also created a new one, this time comparing C++ with D:

[http://www.ultimatepp.org/www\\$suppweb\\$vsd\\$en-us.html](http://www.ultimatepp.org/www$suppweb$vsd$en-us.html)

Almost 5 times faster than GCC's std:: implementation in supposedly I/O limited benchmark and 70% faster than D... not bad

I guess we are now finally approaching the "physical limits of silicon"

Mirek

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Subject: Re: Updated and new benchmarks

Posted by [cbpporter](#) on Fri, 14 Mar 2008 14:52:33 GMT

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luzr wrote on Fri, 14 March 2008 13:58 I have adjusted numbers in U++ vs C++ std:: benchmarks

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Mirek

Interesting results. What has been done to obtain an almost double performance since last time?

edit:

luzr wrote on Fri, 14 March 2008 13:56 Inequality comparison of small strings are now heavily optimized, `Sorting Vector<String>` is now almost twice as fast (if most strings are < 15 characters).

Mirek

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I've read this after my post.

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Subject: Re: Updated and new benchmarks  
Posted by [zsolt](#) on Fri, 14 Mar 2008 16:02:59 GMT  
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The title of third column should be "D language / U++".

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Subject: Re: Updated and new benchmarks  
Posted by [mirek](#) on Fri, 14 Mar 2008 17:44:09 GMT  
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zsolt wrote on Fri, 14 March 2008 12:02The title of third column should be "D language / U++".

Well, depends. Strictly said, yes. But maybe it is confusing that way too.

Mirek

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Subject: Re: Updated and new benchmarks  
Posted by [mirek](#) on Fri, 14 Mar 2008 17:45:42 GMT  
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cbpporter wrote on Fri, 14 March 2008 10:52luzr wrote on Fri, 14 March 2008 13:58I have adjusted numbers in U++ vs C++ std:: benchmarks

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luzr wrote on Fri, 14 March 2008 13:56Inequality comparison of small strings are now heavily optimized, `Sorting Vector<String>` is now almost twice as fast (if most strings are < 15 characters).

Mirek

I've read this after my post.

Actually, this last optimization was only the last 2-7% improvement. The majority is from new String implementation, using SSO with very fast equality comparison and hash value generation.

Mirek

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Subject: Re: Updated and new benchmarks  
Posted by [jmansion](#) on Thu, 10 Apr 2008 13:07:29 GMT  
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These numbers are interesting enough to renew my interest in ntl. And lo, my password reset info comes from [cxl@ntllib.org](mailto:cxl@ntllib.org).

But [www.ntllib.org](http://www.ntllib.org) returns 403 (Forbidden).

Oh well.

How can I access the ntl files, and can they be used without 'all' of UPP?

Also - do you know how your heap implementation stacks up against nedmalloc or jemalloc?

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Subject: Re: Updated and new benchmarks  
Posted by [mirek](#) on Thu, 10 Apr 2008 15:33:09 GMT  
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[jmansion](#) wrote on Thu, 10 April 2008 09:07: These numbers are interesting enough to renew my interest in ntl. And lo, my password reset info comes from [cxl@ntllib.org](mailto:cxl@ntllib.org).

But [www.ntllib.org](http://www.ntllib.org) returns 403 (Forbidden).

Site is basically abandoned. NTL was sort of "U++ preview"...

Quote:

How can I access the ntl files, and can they be used without 'all' of UPP?

Not quite possible now. Sorry.

We are sort of looking for volunteer that would take on this task ("extracting" NTL from U++ sources).

Quote:

Also - do you know how your heap implementation stacks up against nedmalloc or jemalloc?

First time I hear those names It would be nice to test - if you have time

From the brief excursion via google, there was too little info to grasp nedmalloc or jemalloc.

It is also true that U++ allocator is still quite concerned about single-threaded performance; there is some solution to cache-line contention problem, but hard to say how it works in practice. New allocator is very specifically tuned for U++ framework too.

However, single-threaded performance is now so effective, that checking for NULL (C++ standard requirement) is now visible as a couple of percents performance degradation

Mirek

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Subject: Re: Updated and new benchmarks  
Posted by [jmansion](#) on Fri, 18 Apr 2008 12:30:33 GMT  
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Just had a look at the code and was surprised to find no namespace.

Is there any plan to add one?

I'll definitely need one in my local build.

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Subject: Re: Updated and new benchmarks  
Posted by [mirek](#) on Fri, 18 Apr 2008 15:15:32 GMT  
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jmansion wrote on Fri, 18 April 2008 08:30 Just had a look at the code and was surprised to find no namespace.

Is there any plan to add one?

I'll definitely need one in my local build.

You must have been looking into wrong places. U++ is in Upp namespace.

Mirek

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Subject: Re: Updated and new benchmarks  
Posted by [tvanriper](#) on Sun, 20 Apr 2008 14:00:39 GMT  
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I think the namespace is hidden in a macro, so it's easy to miss.

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