Subject: theide: Windows Microsoft SDK 64-bit debugging
Posted by mirek on Sun, 10 Aug 2014 17:30:07 GMT

I am happy to announce that another functionality gap is being resolved:

theide is now able to debug 64-bit windows apps compiled with MSC compiler.

In order to do so, you need to compile 64-bit ide; that is then able to debug both 64-bit and 32-bit apps.

As this is new, it is possible that something is till broken, I also plan to do some more improvements with debugger. Please report any problems....

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by Klugier on Sun, 10 Aug 2014 19:15:17 GMT

Hello Mirek,

Are you planing to support 64 bits MS Windows nightly builds?

Sincerely,
Klugier

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by mirek on Sun, 10 Aug 2014 19:46:05 GMT

Klugier wrote on Sun, 10 August 2014 21:15Hello Mirek,

Are you planing to support 64 bits MS Windows nightly builds?

Sincerely,
Klugier

Yes, but might take some time...

Mirek

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by koldo on Mon, 11 Aug 2014 08:57:19 GMT

Good. Thank you!

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by koldo on Mon, 11 Aug 2014 16:08:56 GMT
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Hello Mirek

I cannot debug 32 or 64 bit applications.

With TheIDE 32 I have compiled TheIDE 64. It works well, but when I add a breakpoint, the application crashes with an exception writing at 00000000. This happens with simple demo packages like Clock.

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by mirek on Mon, 11 Aug 2014 17:24:03 GMT
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koldo wrote on Mon, 11 August 2014 18:08Hello Mirek

I cannot debug 32 or 64 bit applications.

With TheIDE 32 I have compiled TheIDE 64. It works well, but when I add a breakpoint, the application crashes with an exception writing at 00000000. This happens with simple demo packages like Clock.

Debugging 64-bit or 32-bit app? What OS?

Mirek

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by mirek on Mon, 11 Aug 2014 17:28:51 GMT
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BTW, I have just tried it works.... using MSC10x64, breakpoint on the first line of constructor.

File Attachments

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by koldo on Tue, 12 Aug 2014 07:39:14 GMT

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mirek wrote on Mon, 11 August 2014 19:24koldo wrote on Mon, 11 August 2014 18:08Hello Mirek

I cannot debug 32 or 64 bit applications.

With TheIDE 32 I have compiled TheIDE 64. It works well, but when I add a breakpoint, the application crashes with an exception writing at 00000000. This happens with simple demo packages like Clock.

Debugging 64-bit or 32-bit app? What OS?

MirekHello Mirek

Windows 7 64 bits. The problem happens debugging both MSC10 32 and 64 bits.

File Attachments

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by mirek on Tue, 12 Aug 2014 11:34:49 GMT

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I have now fixed issue with some strange FP exceptions, I think the fix can be related to this as well. Can you please recheck with the latest trunk?

Thanks,

Mirek

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by masu on Tue, 12 Aug 2014 13:24:42 GMT

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Hi,

---

can you please also add#ifdef COMPILER_MSCto Cpu.cpp and Stack.cpp?
I get compile errors with TDM_MINGW64.

Thanks! :)

Regards
Matthias

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by mirek on Tue, 12 Aug 2014 18:07:59 GMT
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Ops. Thanks, applied.

Mirek

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by koldo on Tue, 12 Aug 2014 21:02:57 GMT
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Problem solved. Now it works perfectly with MSC in 32 and 64 bits. Thank you Mirek.

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by mirek on Wed, 13 Aug 2014 06:04:01 GMT
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koldo wrote on Tue, 12 August 2014 23:02Problem solved. Now it works perfectly with MSC in 32 and 64 bits. Thank you Mirek.

Great! Thanks for reporting.

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by mirek on Sun, 24 Aug 2014 09:04:55 GMT
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New features implemented:

- debugger now fully implements global variables. Known problem: I have not found a way how to distinguish between two static global variables with the same name in different modules, so one of them is randomly picked.

- debugger now implements conditional breakpoints; thing to know is that it is capable of

evaluating about thousands of conditional breakpoints per second. TODO: I still yet have to document expression syntax

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Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by 281264 on Sun, 21 Sep 2014 12:17:37 GMT
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Mirek,

Many thanks for your effort in developing this new feature. I am trying to test it and have this question with regard to the compilation in 64 bits; when you say this:

Quote:
In order to do so, you need to compile 64-bit ide; that is then able to debug both 64-bit and 32-bit apps.

How can I do it?

Best regards,

Javier

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by mirek on Sun, 21 Sep 2014 15:03:03 GMT
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281264 wrote on Sun, 21 September 2014 14:17Mirek,

Many thanks for your effort in developing this new feature. I am trying to test it and have this question with regard to the compilation in 64 bits; when you say this:

Quote:
In order to do so, you need to compile 64-bit ide; that is then able to debug both 64-bit and 32-bit apps.

How can I do it?

Best regards,

Javier

Automated build method setup should have had setup 64-bit build method for you. All you need to do is switch the build method e.g. from MSC10 to MSC10x64.
If you do not have that method, the simplest way is to rerun automated build method setup (Setup/Automatic setup).

Mirek

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by 281264 on Mon, 22 Sep 2014 20:26:18 GMT
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The Automated Building Method set up is not the problem for it detects MSC 12x64. The version I am using
is 7703 loaded by using the win32 installer from the web site. What do you think is going wrong?

Thx,

Javier

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by mirek on Wed, 24 Sep 2014 06:14:41 GMT
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281264 wrote on Mon, 22 September 2014 22:26The Automated Building Method set up is not the problem for it detects MSC 12x64. The version I am using
is 7703 loaded by using the win32 installer from the web site. What do you think is going wrong?

Thx,

Javier

I am a little bit confused now... So I will try to cover all corners :)

After installing U++ in windows, you (for now) get 32-bit theide.exe. This is able to compile 64-bit apps, but not to debug them.

You need 64-bit theide.exe. Sources of ide are part of uppsrc, so what you are supposed to do is to build 64-bit theide.exe using 32-bit theide.exe that you have. Thus at the start of ide, choose uppsrc assembly and ide package, then set the method to MSC 12x64 and Optimal mode, then build. This should produce ide.exe (you can use Build/Open output directory to locate it quickly), now rename to theide.exe and replace the original theide.exe (which is in c:/upp by default) with this new one (perhaps make backup first).

Mirek

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by 281264 on Wed, 24 Sep 2014 12:46:15 GMT
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Mirek,

Thank you for the clarification. It works fine.

I've tested the feature with several types of applications and found that in simple "console" applications (those with CONSOLE_APP_MAIN + Core package) you have to select the option "All shared" within "building"+"Output mode" menu. Otherwise, the compier produces an error. It might well be that I have had that option the wrong way from the very beginning.

Many thanks.

Javier

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by 281264 on Thu, 25 Sep 2014 12:26:44 GMT
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After executing "Build" + "Rebuild all" the problems dissapeared. Everything works fine now.

Cheers!

Javier

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by cbpporter on Tue, 30 Sep 2014 08:15:02 GMT
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Lately the debugger is very good (relatively speaking to what it was), but in a few rare cases Strings still can't be debugged. This bug is at least 6 month old. The debugger shows "len = x", where x is the correct value, but "s = " either display gibberish, of "FreeFreeFreeFree...".

The problem is rare enough now that I can't find a rule or scenario to reproduce it in a test case.

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by mirek on Tue, 30 Sep 2014 13:35:27 GMT
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cbpporter wrote on Tue, 30 September 2014 10:15Lately the debugger is very good (relatively speaking to what it was), but in a few rare cases Strings still can't be debugged. This bug is at

least 6 month old. The debugger shows "len = x", where x is the correct value, but "s = " either display gibberish, of "FreeFreeFreeFree...".

The problem is rare enough now that I can't find a rule or scenario to reproduce it in a test case.

Actually, I have met this too. I suspect that debugger is not the problem here, that the issue is in String - because in fact, that 'ptr' and 'len' are in String only because of debugging and are set, by String code in debug mode, to actual values.

Unfortunately, it is so sporadic that I was not able to reproduce. I believe it has something to do with length of string and method how it was created...

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by koldo on Wed, 01 Oct 2014 07:53:59 GMT
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Hello Mirek

I also have the same problem with Strings.

In addition many times TheIDE hangs when debugging (Windows 7). Its thread is running at 100% and memory use goes increasing, so it seems it is doing something.

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by cbpporter on Wed, 01 Oct 2014 09:34:57 GMT
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mirek wrote on Tue, 30 September 2014 16:35cbpporter wrote on Tue, 30 September 2014 10:15Lately the debugger is very good (relatively speaking to what it was), but in a few rare cases Strings still can't be debugged. This bug is at least 6 month old. The debugger shows "len = x", where x is the correct value, but "s = " either display gibberish, of "FreeFreeFreeFree...".

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Unfortunately, it is so sporadic that I was not able to reproduce. I believe it has something to do with length of string and method how it was created...

Yeah, I'm aware of that . The "DSym" implementation. I did write a hacky debugger addition to debug strings without that mechanic only for TheIDE and posted it a few years ago on the forum.

As said, I too can't reliably reproduce it, but when I will, I'll surely check it out to see why it fails.

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by koldo on Thu, 02 Oct 2014 16:16:10 GMT
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Quote:In addition many times TheIDE hangs when debugging (Windows 7). Its thread is running at 100% and memory use goes increasing, so it seems it is doing something.

This happens even with no debugging at all. Just editing the code in TheIDE while the program is running, TheIDE hangs.

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by mirek on Sat, 04 Oct 2014 08:26:12 GMT
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koldo wrote on Thu, 02 October 2014 18:16Quote:In addition many times TheIDE hangs when debugging (Windows 7). Its thread is running at 100% and memory use goes increasing, so it seems it is doing something.

This happens even with no debugging at all. Just editing the code in TheIDE while the program is running, TheIDE hangs.

Well, there is lot of new development in theide now. Do you have any specifics about hanging? Anything special? Does it hang forever? How does look the file edited? Perhaps even screenshot would be useful...

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by koldo on Fri, 10 Oct 2014 06:29:36 GMT
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Quote:In addition many times TheIDE hangs when debugging (Windows 7). Its thread is running at 100% and memory use goes increasing, so it seems it is doing something.

Well, after a week testing I have not found this problem again so, for me, it is solved.

Subject: Re: theide: Windows Microsoft SDK 64-bit debugging
Posted by mirek on Wed, 12 Nov 2014 14:23:58 GMT
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koldo wrote on Fri, 10 October 2014 08:29Quote:In addition many times TheIDE hangs when debugging (Windows 7). Its thread is running at 100% and memory use goes increasing, so it seems it is doing something.

Well, after a week testing I have not found this problem again so, for me, it is solved.

I have just fixed a issue which could have caused freezes with active debugger, so hopefully this is now really fixed...