Subject: Gdb now supports execution interruption and live breakpointing
Posted by Klugier on Fri, 29 Jun 2018 20:34:21 GMT
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Hello,

I would like to announce that now it is possible to break the execution of the application in any time with GDB. It allows you to set breakpoints whenever you want. The improvement works on all supported platforms Windows & POSIX. Currently, we are still working on live breakpointing with GDB.

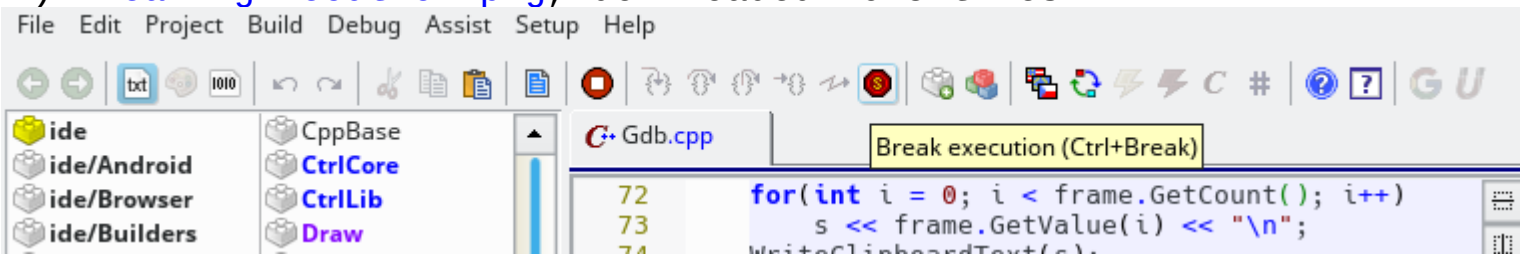
Here is the screen-shot of improved GDB menu inside IDE:

Moreover, TheIDE now shows maximally 200 entries of the stack to avoid TheIDE not responding problem. The following problem occurred when recursion crashed the application.

Sincerely,
Klugier

File Attachments

1) BreakingExecution.png, downloaded 1025 times



Subject: Re: Gdb now supports execution interruption
Posted by koldo on Sat, 30 Jun 2018 14:08:44 GMT
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Thank you Klugier.

Subject: Re: Gdb now supports execution interruption
Posted by Klugier on Tue, 10 Jul 2018 19:19:37 GMT
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Hello,

I am glad to announce that live breakpointing for the GDB debugger backend is implemented. I hope you will guys use this feature often while writing apps with U++ framework... Have a nice

debugging with GDB backend!

Today I resolve some minor issue with live breakpointing, so please try tomorrow version of U++ (11.07.2018).

Sincerely,
Klugier

Subject: Re: Gdb now supports execution interruption
Posted by koldo on Wed, 11 Jul 2018 14:42:22 GMT
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Hi Klugier

With this improvements, will GDB functionality be equivalent to the one of MSC?

Subject: Re: Gdb now supports execution interruption
Posted by Klugier on Wed, 11 Jul 2018 17:50:54 GMT
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Hello,

I believe PDB back-end is still recommended especially on Windows. I think it is still more mature and stable. However, I do not use it very often, I mainly develop on Linux when GDB is the only choice.

You can compare these two implementations by your own and write your feelings here. I would be glad if somebody tests our improvements.

Currently we have two more serious problems related to GDB:
- high CPU usage (This can be eliminated by moving GDB invoking code to separate thread - one core is fully loaded - busy waiting)
- Click on the button problem that freeze TheIDE (POSIX only)

Sincerely,
Klugier

Subject: Re: Gdb now supports execution interruption
Posted by Novo on Thu, 12 Jul 2018 03:04:23 GMT
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Klugier wrote on Wed, 11 July 2018 13:50GDB is the only choice.

Hi Klugier,

Please do not forget about Clang and lldb.
Clang is the best compiler for Linux.

Subject: Re: Gdb now supports execution interruption
Posted by koldo on Thu, 12 Jul 2018 15:27:00 GMT
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Dear Klugier

I have tried it with MinGW in Windows 10.
Unfortunately clicking F9 when program is running, freezes TheIDE, program is running and TaskManager shows 0% activity in gdb and TheIDE.
When the breakpoints have been set before launching the program, TheIDE runs.

Subject: Re: Gdb now supports execution interruption
Posted by Klugier on Thu, 12 Jul 2018 20:09:06 GMT
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Hello Koldo,

I just tested latest U++ on Windows and I am unable to reproduce your problem. Please make sure you have selected "Standard" GDB mode in your settings:

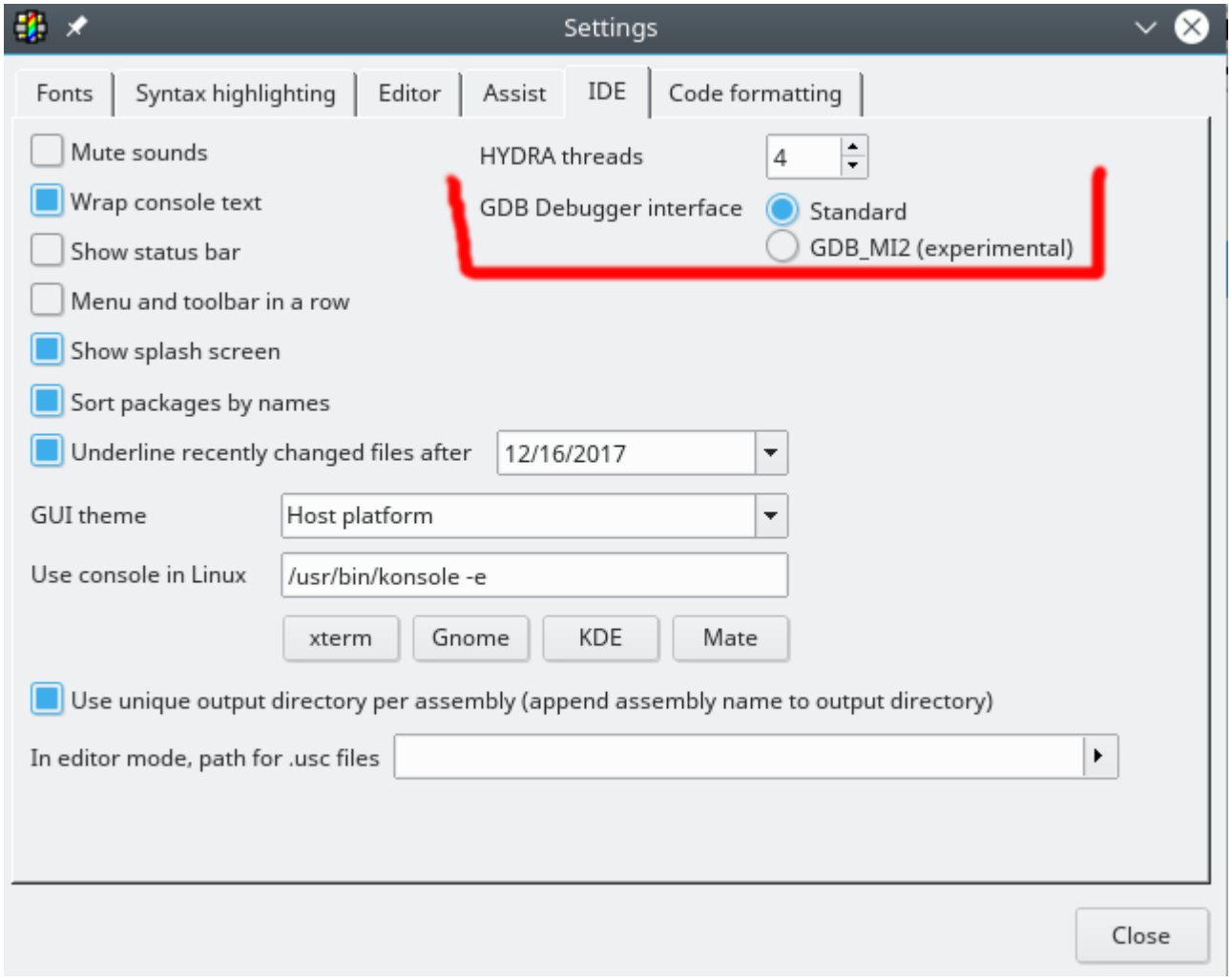
Currently, I am aware that GDB_MI2 doesn't work correctly in simple scenario. For me there is not need to keep two different GDB implementations. We should focus on only one and polish it. Some time ago I asked Massimo for deletion, but he didn't answer me, yet.

I have another question - what is your version of TheIDE?

Sincerely,
Klugier

File Attachments

1) GdbSettings.png, downloaded 888 times



Subject: Re: Gdb now supports execution interruption
Posted by koldo on Fri, 13 Jul 2018 11:47:37 GMT
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Thank you Klugier

That was the problem. Now MinGW GDB debugger works right and fast

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Subject: Re: Gdb now supports execution interruption
Posted by Novo on Fri, 13 Jul 2018 18:06:33 GMT
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A quote from the LLDB documentation:

"The LLDB debugger APIs are exposed as a C++ object oriented interface in a shared library. The lldb command line tool links to, and uses this public API."

Subject: Re: Gdb now supports execution interruption
Posted by Klugier on Mon, 30 Jul 2018 09:50:11 GMT
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Hello,

FYI, The GDB_MI2 backend was removed from TheIDE. In meanwhile, I also fixed some minor issues related to GDB.

Sincerely,
Klugier