Subject: Assertion in Debug.cpp:246 "nesting_depth == 0" [BUGS?]
Posted by hojtsy on Wed, 22 Mar 2006 15:25:55 GMT
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I have an assertion failure in my application while quitting. Assertion is triggered in this method of Core/Debug.cpp:

```
TimingInspector::~TimingInspector() {
 ASSERT(nesting_depth == 0);
```

I have running timers and threads when I quit. Could this be the reason for this assertion? I am using 603-dev2 on Windows.

Subject: Re: Assertion in Debug.cpp:246 "nesting_depth == 0"
Posted by mirek on Wed, 22 Mar 2006 16:38:41 GMT
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hojtsy wrote on Wed, 22 March 2006 10:25I have an assertion failure in my application while quitting. Assertion is triggered in this method of Core/Debug.cpp:

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I have running timers and threads when I quit. Could this be the reason for this assertion? I am using 603-dev2 on Windows.

Very likely - if you have threads running at exit. Actually, at the moment, it seems to me like bad practice - IMO code process should start and end with single thread...

Unfortunately, it is also quite possible that this fails with MT app even if ended as one thread - TiminigInspector has very specic use and is not MT safe (and likely will never be).

The real question is: are you using TIMING or RTIMING macros somewhere or they are just forgoten in U++ library code?

Mirek

Subject: Re: Assertion in Debug.cpp:246 "nesting_depth == 0"
Posted by hojtsy on Wed, 22 Mar 2006 18:24:42 GMT
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I have threads running on exit because those threads are waiting for very slow HTTP servers to respond (inside library method). Since U++ does not provide thread termination, and I can not notify the library function to stop waiting, I would have to wait for the download attempts to time out, which could be 1 minute. It is not acceptable to wait 1 minute for application termination.

I am not using TIMING or RTIMING in my application, so they should be in the library.

Subject: Re: Assertion in Debug.cpp:246 "nesting_depth == 0"
Posted by mirek on Wed, 22 Mar 2006 19:37:11 GMT
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hojtsy wrote on Wed, 22 March 2006 13:24I have threads running on exit because those threads are waiting for very slow HTTP servers to respond (inside library method). Since U++ does not provide thread termination, and I can not notify the library function to stop waiting, I would have to wait for the download attempts to time out, which could be 1 minute. It is not acceptable to wait 1 minute for application termination.

Actually, this is quite interesting topic to resolve:

- first, it is IMO impossible to correctly terminate the thread the "hard" way - in C++, many resources would be left allocated. What would indeed be needed is some form of "forced thread exception"... (is that possible)?

- lefts us with "soft" way - somehow signalling to the thread that it should terminate. In "GuiMT" example, I am doing that using active checking of "terminated" state, but that of course is not a very good way...

Any suggestions in this area are welcome!

Quote:
I am not using TIMING or RTIMING in my application, so they should be in the library.

OK, I will run "find in files"

Mirek

Subject: Re: Assertion in Debug.cpp:246 "nesting_depth == 0"
Posted by mirek on Wed, 22 Mar 2006 19:39:56 GMT
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Found one forgotten RTIMING in XML code. Were you using XML?

Mirek

Subject: Re: Assertion in Debug.cpp:246 "nesting_depth == 0"
Posted by hojtsy on Wed, 22 Mar 2006 23:14:12 GMT
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I was using XML.
The library function that is running in the threads during exit is the HttpClientGet. I see no other clean way for using the HttpClient than creating own thread for the communication, so that GUI remains responsive.

I guess I could create and pass a progress callback which stops these functions when exit is requested. Then I would need to count active threads somehow: the best solution would be to manage the thread count in the sThreadRoutine library function, instead of attempting to implement this in multiple client apps. Also the Core package could provide a WaitUntilThreadsExit function, which would wait on the semaphor of this thread count. Than I would somehow invoke the WaitUntilThreadsExit function when exit is requested. These desired library features seems to be usefull for practically every MT app.

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