GROMACS - Bug #2051

gmxTestCXX11 can fail because of linker issue
09/14/2016 02:24 AM - Roland Schulz

<table>
<thead>
<tr>
<th>Status:</th>
<th>Closed</th>
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<tbody>
<tr>
<td>Priority:</td>
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<tr>
<td>Assignee:</td>
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<tr>
<td>Category:</td>
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<td>Target version:</td>
<td>2018</td>
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<td>Affected version - extra info:</td>
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<td>Affected version:</td>
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<td>Difficulty:</td>
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**Description**

We use std::thread in the c++11 test and we don't add any linker flags. Some compilers (e.g. ICC 17) require a linker flag for that under certain conditions (e.g. -static).

Possible solutions:
1) We could move the check after we find thread support.
2) We remove the usage of std::thread from the c++11 check

**Associated revisions**

Revision 60243c3b - 12/07/2017 02:37 PM - Roland Schulz
Fix C++11 library check's thread dependency

Test was depending on thread library without explicit linking it, which some compiler require.

Fixes #2051

Change-Id: I9929d9373a4e8caa393f548d25a78bc03c016bf9

**History**

#1 - 09/19/2016 08:25 PM - Mark Abraham
We use std::thread in the code, so we need to test it during cmake, so shouldn't do only 2) without code changes. Thread support isn't optional for C++11, so we can't do 1).

I suggest we organize to use the linker flags

#2 - 09/19/2016 08:33 PM - Roland Schulz
False positives are worse than not checking. That's why I think 2 is an improvement. But of course it isn't ideal.

With 1 I meant running it after FindThread. So that we know the required linker flags.

#3 - 09/26/2016 08:20 AM - Mark Abraham
Ah, I now see that even with gcc and clang on Linux, one needs to link libpthread, so needs to use -pthread. So we can indeed move the threading-support check before the C++11 check (and add the linker flag icc needs - which should come from the threading test, right?). In principle, the C++11 standard library could use other back ends, but if that ever becomes a thing, then we might separate the C++11 threading test from the other C++11 tests.

#4 - 12/03/2017 11:56 PM - Mark Abraham
- Target version set to 2018

Someone should check icc (17 and 18?) and static linking to see what needs to be done here.

#5 - 12/05/2017 09:44 PM - Gerrit Code Review Bot
Gerrit received a related patchset '1' for Issue #2051.
Uploader: Roland Schulz (roland.schulz@intel.com)
Change-Id: gromacs~release-2018~I9929d9373a4e8caa393f548d25a78bc03c016bf9
Gerrit URL: https://gerrit.gromacs.org/7292
#6 - 12/05/2017 11:38 PM - Roland Schulz
- Status changed from New to Fix uploaded

#7 - 12/07/2017 06:58 PM - Roland Schulz
- Status changed from Fix uploaded to Resolved

Applied in changeset 60243c3b22d7a3f34d4deb286021af0e8fa894.

#8 - 12/07/2017 07:14 PM - Roland Schulz
- Status changed from Resolved to Closed