GROMACS - Bug #1461
CMake SIMD tests may add compiler flags that cause warnings
03/15/2014 11:07 AM - Teemu Murtola

Status: Closed
Priority: Normal
Assignee: Erik Lindahl
Category: build system
Target version: 5.0
Affected version: 5.0
Difficulty: uncategorized

Description
Currently, it can happen that although CMake configuration passes without any errors or warnings, it picks SIMD compiler flags that cause an excessive number of warnings during compilation. At least the Windows builds on Jenkins are affected: every file produces warnings like

```
cl : Command line warning D9002 : ignoring unknown option '-msse2'
```

I haven't checked whether this affects other builds than the Windows ones.

The test still correctly detects when the compiler can't compile the code, and moves on to test the next flag. But in these cases, it fails to detect whether the flag actually makes sense. This is probably because some compilers return a success even though they produced warnings; CheckCCompilerFlag has extra code to work around this, but our custom implementation doesn't have that.

This may not be critical, since the test should still work to find a flag that makes the compilation pass. But the warnings can be confusing for users, and it makes it painful to read the Jenkins console output. Currently, the Jenkins console output is required to diagnose quite a few different types of issues, and it is unnecessarily difficult to find the relevant text when it is hidden in a mass of these warnings.

Related issues:
Related to GROMACS - Task #1483: Fix warnings ignored by Jenkins

Associated revisions
Revision 964b797d - 06/23/2014 05:27 PM - Erik Lindahl
Detect non-fatal warnings when trying CFlags for source

We now first check the flag itself (and catch warnings), after which we check if our SIMD source compiles with it.

Fixes #1461.

Change-Id: Ic6ae99f62c5657195a59dc83ab08399d3491249a

History
#1 - 04/17/2014 08:48 AM - Teemu Murtola
- Related to Task #1483: Fix warnings ignored by Jenkins added

#2 - 06/12/2014 02:07 AM - Erik Lindahl
Our code uses CheckCCompilerFlag(), which in turn greps for warnings, so I'm not entirely sure how to fix this?

#3 - 06/12/2014 02:37 AM - Teemu Murtola
No, the issue is that CheckCCompilerFlag is not used in gmxFindFlagsForSource.cmake, so those warnings are ignored for the result of the test.

#4 - 06/12/2014 10:33 AM - Gerrit Code Review Bot
Gerrit received a related patchset `1' for Issue #1461.
Uploader: Erik Lindahl (erik@kth.se)
Change-Id: lc6ae99f62c5657195a59dc83ab08399d3491249a

03/20/2020
Gerrit URL: https://gerrit.gromacs.org/3581

#5 - 06/12/2014 10:33 AM - Erik Lindahl
- Status changed from New to Fix uploaded

#6 - 06/23/2014 09:25 PM - Erik Lindahl
- Status changed from Fix uploaded to Resolved

#7 - 06/23/2014 09:25 PM - Erik Lindahl
- Status changed from Resolved to Closed

#8 - 07/15/2014 11:40 AM - Teemu Murtola
- Target version set to 5.0