CUDA host compiler check is not retriggered

07/23/2018 01:00 PM - Szilárd Páll

Status: Closed
Priority: Low
Assignee: Szilárd Páll
Category: build system
Target version: 2018.3
Affected version - extra info:
Affected version: 2018.2
Difficulty: uncategorized

Description
The check that is meant to detect whether the nvcc + host compiler combination work correctly seems to not get rerun after conditions change that should otherwise trigger a re-check considering the line `source:cmake/gmxManageGPU.cmake#L272`.

Repro steps:

```bash
$ cmake ../ -DGMX_FFT_LIBRARY=fftpack
[...]
-- Check for working NVCC/C compiler combination
-- Check for working NVCC/C compiler combination - works
[...]
$ cmake ../ -DGMX_FFT_LIBRARY=fftpack -DCUDA_HOST_COMPILER=foo
-- Configuring done
-- Generating done
```

Clearly, the second cmake invocation should have resulted in a rerun of the check and a failure.

Related issues:
Related to GROMACS - Bug #1616: configuration should check that the compiler ...
Closed

Associated revisions
Revision 5a8efa7b - 07/30/2018 01:12 PM - Szilárd Páll
Fix nvcc host compiler check triggering

The nvcc host compiler check conditional triggering on the change of the host compiler binary has not been functional as the check has been placed after another `gmx_check_if_changed()` call on the same variable. This change moves the code that checks the functioning of nvcc and host compiler to `gmxManageNvccConf` and refactors the conditionals to reuse the result of the previously issues check if changed call.

Fixes #2583

Change-Id: i26586aaec394cce93a05774cb4184b3928b560cb

History

#1 - 07/23/2018 01:01 PM - Szilárd Páll
- Related to Bug #1616: configuration should check that the compiler will work with nvcc added

#2 - 07/23/2018 01:35 PM - Szilárd Páll
- Status changed from New to In Progress

gmx_check_if_changed() on L272 does not work on the CUDA_HOST_COMPILER condition because this is already checked in `gmxManageNvccConf.cmake` which precedes this code. In fact, the buggy check in question is also misplaced and as it's an nvcc-specific check, it should be in `gmxManageNvccConf.cmake` too.
Gerrit received a related patchset '1' for Issue #2583.
Uploader: Szilárd Páll (pall.szilard@gmail.com)
Change-Id: gromacs~release-2018~I26586aaec394c993a05774cb4184b3928b560cb
Gerrit URL: https://gerrit.gromacs.org/8110

- Status changed from In Progress to Fix uploaded
- Assignee set to Szilárd Páll

Applied in changeset 5a8efa7bee096c473d4bcb2a7322f658ae1a9a4.

- Status changed from Resolved to Closed
- Target version set to 2018.3