GROMACS - Bug #2061

fix FindNVML for CUDA 8.0

10/19/2016 02:32 PM - Szilárd Páll

Status:	Closed		
Priority:	Normal		
Assignee:			
Category:	build system		
Target version:	2016.4		
Affected version - extra info:	all GROMACS versions, but only with CUDA 8+	**Difficulty:**	simple
Affected version:	2016.3		

Description

CUDA 8.0 ships the necessary components for NVML support with the toolkit:

- library stub at $CUDA_HOME/lib64/stubs/libnvidia-ml.so
- header at $CUDA_HOME/include/nvml.h

Hence, starting from this release detection of the GDK is not necessary anymore which greatly simplifies things and makes NVML more widely available. Hence, we should consider extending our FindNVML for a future r2016.x release.

Related issues:

Related to GROMACS - Bug #2311: NVML compilation issues	**Closed**

Associated revisions

Revision 0f541787 - 05/29/2017 07:50 PM - Jiri Kraus

Update FindNVML to fix #2061

Fixes FindNVML to reflect move of the NVML development files from the
GDK to the CUDA Toolkit with CUDA 8.

Change-Id: I1d99ebff1fa32ba1fd44a37dcb43158da733daed

History

#1 - 10/19/2016 02:33 PM - Szilárd Páll

- Target version deleted (2016.1)

#2 - 05/12/2017 05:22 PM - Mark Abraham

This is probably fine for a build, and we should educate our CMake accordingly. We should document that the real libnvidia-ml.so should be found at run time (it still seems to be provided by the driver installation).

#3 - 05/12/2017 05:27 PM - Mark Abraham

- Tracker changed from Task to Bug

- Subject changed from extend FindNVML for CUDA 8.0 to fix FindNVML for CUDA 8.0

- Status changed from New to Accepted

- Target version set to 2016.4

- Affected version - extra info set to all GROMACS versions, but only with CUDA 8+

- Affected version set to 2016.3

This is a bug, because a user with CUDA 8 should not be required to install the separate GDK, because from CUDA 8 it is not distributed separately. This was probably not clear when the issue was opened.

For a bug fix, setting a target version when accepting makes sense even if not planning/able to work on it right now. There's always one open for branches that are being maintained, and bumping a handful of outstanding known issues to the next bug fix release is reasonable.

Otherwise, leaving a blank target and no affected version gives us no good way to find it in the large number of open issues. (Those issues also include a lot of "wish list" tasks that look the same to the database.)

#4 - 05/23/2017 10:32 AM - Gerrit Code Review Bot

Gerrit received a related patchset '1' for Issue #2061.
Uploader: Jiri Kraus (jkraus@nvidia.com)
Change-Id: gromacs~master~I1d99ebff1fa32ba1fd44a37dcb43158da733daed
Gerrit URL: https://gerrit.gromacs.org/6651

#5 - 05/24/2017 11:26 AM - Gerrit Code Review Bot

Gerrit received a related patchset '1' for Issue #2061.
Uploader: Jiri Kraus (jkraus@nvidia.com)
Change-Id: gromacs~release-2016~I1d99ebff1fa32ba1fd44a37dcb43158da733daed
Gerrit URL: https://gerrit.gromacs.org/6657

#6 - 05/24/2017 04:19 PM - Szilárd Páll

- Status changed from Accepted to Fix uploaded

#7 - 05/29/2017 07:33 PM - Mark Abraham

Confirming that the approach of linking to the stub library has worked for me on Piz Daint

#8 - 05/31/2017 05:32 PM - Szilárd Páll

- Status changed from Fix uploaded to Resolved

I've also tested last week on a couple of configs both CUDA <8.0 and ==8.0.

#9 - 05/31/2017 08:08 PM - Szilárd Páll

- Status changed from Resolved to Closed

I think the amount of feedback&testing warrants closing this issue.

#10 - 12/06/2017 11:27 AM - Aleksei Iupinov

- Related to Bug #2311: NVML compilation issues added