GROMACS - Bug #2293

libraries target naming in cmake

11/13/2017 11:28 AM - Aleksei Iupinov

Status:	Closed			
Priority:	Low			
Assignee:				
Category:	build system			
Target version:	2019			
Affected version - extra info:		**Difficulty:**	simple
Affected version:	git master			

Description

While fixing GMX_CLANG_CUDA postsubmit being broken after libgpu_utilstest introduction in I9367d0f996de04c21312cef2081cc08148f80561,
I became aware of the fact that the cmake target libgpu_utilstest actually leads to the creation of the file named liblibgpu_utilstest.so. Another "lib" gets prepended automatically by cmake itself. Confused, I looked at libgromacs target, and discovered it gets renamed with

```
set_target_properties(libgromacs PROPERTIES
                      OUTPUT_NAME "gromacs${GMX_LIBS_SUFFIX}"
                      <more properties...>
                      )
```

Was it a conscious decision to make the library target name(s) stand out only to "erase" lib prefix later?
Should libgpu_utilstest follow same approach?

Associated revisions

Revision a67a6b0e - 11/17/2017 01:23 PM - Aleksei Iupinov

Make gpu_utils-test build with GMX_CLANG_CUDA

Same workarounds are applied to libgpu_utilstest as for libgromacs.
Renamed ligbpu_utilstest target to gpu_utilstest_cuda to avoid the
double "lib" prefix in the filename.

Refs #2259, #2293

Change-Id: I16b07a13ce2dca30079a889e2b314483d82d3674

History

#1 - 11/13/2017 12:16 PM - Aleksei Iupinov

As Paul comments on Gerrit, it's also possible to overwrite default "lib" prefix with PROPERTIES PREFIX ""

#2 - 11/17/2017 08:20 AM - Mark Abraham

I don't know, but we can also look at the git history to see if there are any clues present when it was introduced.

Naturally it's nice to have a target called libgromacs, and to build a library of the same name, but if a tool prepends a "lib" to the target name, then some hack like this is all you can do. Ideally there'd be a way to seaparate the target name from the library name.

#3 - 11/17/2017 01:16 PM - Szilárd Páll

As I noted somewhere (perhaps irl), I have a vague memory that this was perhaps a hack to make Windows libraries be called "libgromacs", but I may be making that up.

I can try to do a bit more of git archeology later when the usual rush-and-stress is over.

#4 - 11/17/2017 01:18 PM - Szilárd Páll

BTW, interestingly, there is no sign of it in v4.6 (did git grep 'add_library'), so there's a good chance there won't be a need to look at CMake fossils from a billion years ago.

#5 - 12/12/2017 02:47 PM - Erik Lindahl

- Target version set to 2019

Libraries on Windows typically don't have prefixes, and on Unix the prefix is not considered part of the name (that's why the prefix is not included in linker flags).

Unless there is any pressing reason, I suggest we simply rename it to "gromacs" for release-2019.

#6 - 10/03/2018 09:44 PM - Mark Abraham   2/2

- Status changed from New to Closed

Nobody's prioritised this for 2019, and it's not something that we should spend time on in future.