GROMACS - Task #1415
Get rid of legacyheaders/
01/02/2014 05:08 PM - Teemu Murtola

| Status:   | Closed       |
| Priority: | Normal       |
| Assignee: | Mark Abraham |
| Category: | core library |
| Target version: | 2016         |
| Difficulty: | uncategorized |

**Description**

The legacyheaders/ directory was meant as a temporary workaround to be able to move files to the new directory layout gradually, while keeping the build and the installed headers working all the time. The original idea (when the discussion started back in 2010 or so) was that this would be more or less gone by 5.0, but it has been quite persistently alive. So the goal would be to have all the headers from src/gromacs/legacyheaders/ moved into subdirectories like src/gromacs/domdec/ or src/gromacs/nbnxn/ or something, together with the source files that implement those functions and anything that belongs naturally together with them. Large parts of this should not be rocket science, and if people would contribute on the areas that they know, we could then see what are the problematic areas. The initial division can also be adjusted later as we grow wiser.

There are currently about 150 headers remaining, plus 38 from thread_mpi (the latter should be easy to move, once there is some clarify for #1411). Large parts of this will be easy, but the types/ subdirectory can be challenging.

This would allow us to clearly see the dependencies between the modules and draw reasonable division lines for the different libraries required for, e.g., #1165. Visualizing the dependencies between the parts with something like https://gerrit.gromacs.org/#/c/2908/ would provide a much clearer picture of where we are and what could be done to clarify the structure of the code.

**Associated revisions**

**Revision fdbd0916 - 01/11/2014 02:41 PM - Carsten Kutzner**

Move essential dynamics / flooding code to separate directory

Part of #1415 Get rid of legacyheaders.

Additional changes:
- provided doxygen-style documentation for functions in edsam.h (partly copied over from edsam.c and removed there to avoid duplication)
- uncrustified edsam.c and edsam.h

Change-Id: If4af498470c5200d50ac1d1b5537917c873380b5

**Revision 904e082b - 01/13/2014 08:06 PM - Carsten Kutzner**

Move pull code to separate subdirectory

Another part of #1415 Get rid of legacy headers.

Other changes:
- updated pulling-related include guards to new format
- updated documentation for doxygen
- updated .h includes
- uncrustified pull.h and pull_rotation.h
- updated copyright year for all files touched by this commit

Change-Id: lef1ed3543b84f651d1bf0f01f952b342850f5c22

**Revision 2b85adec - 01/21/2014 07:37 PM - Mark Abraham**

Move more preprocessing files into the module

This removes the need for the gmx_objlib CMake object library, because there is no longer random functionality orphaned in src/programs/gmx (which is there because it was orphaned in src/kernel in release-4-6).
Moved legacyheaders/grompp.h to gmxpreprocess/grompp-impl.h since it only declared structures that are (now) only used in that module (and it no longer #includes stdio.h). gmxpreprocess/grompp.h now only declares gmx_grompp().

Likewise, pdb2gmx, protonate and x2top now have their own single-function headers.

Removed useless declaration of ncontrol from h_db.h

Removed grompp.h-related useless dependencies, declarations and definitions from Generalized Born files.

Updated include and added C++ guards for files already within the module (and new ones). Uncrystified, bumped copyrights

Refs #1415
Change-Id: le7967d7d7f61d684d530e3c2d982486a3cd128f

Revision d3ac3c5b - 04/01/2014 02:00 AM - Teemu Murtola
Move smalloc.h to utility/

One common header away from legacyheaders/.
 Mostly mechanical replacement for the include paths, but removed a few instances where the header was included more than once. Also, reordered the headers a bit, mainly in C++ files.

Part of #1415.
Change-Id: lc438d501eb5eccc285655a9e8f2f625eb12f1d1

Revision 2ca0f555 - 04/02/2014 03:11 PM - Teemu Murtola
Move string2.* to utility/cstringutil.*

Another common header away from legacyheaders/.
Some associated #include cleanup.
This reintroduces some unwanted dependencies (like utility -> fileio), but those need to be fixed separately.

Part of #1415.
Change-Id: lflfb2820019e2b41ef74bcab2d2364917e43d58

Revision 1fe1fb54 - 04/08/2014 05:38 PM - Teemu Murtola
Move gmx_fatal.* to utility/fatalerror.*

One more included-by-all header to utility/.
Mainly mechanical replacement of include paths, some reordering in C++ files. Minor clean-up in the moved files.
gmx_fatal_collective.h not moved at this point, as it is unclear whether it should go here, or somewhere else (utility/ should not depend on t_commrec...).

Now, it's mainly types/simple.h that prevents removing some module-level dependencies to legacyheaders/.
Finding a good location for that (or its contents, if it needs to be split), and reorganizing the code a bit more should now allow really putting utility/ at the bottom of the dependency stack where it belongs.

Part of #1415.
Change-Id: l6e487566d5bd7c9ec7a1455a2d31bd6d64bada3

Revision 83847a3c - 04/16/2014 03:45 AM - Teemu Murtola
Remove sysstuff.h

Replace this with those standard headers that are actually necessary for the source files. There are likely several transitively covered header dependencies now, but those can be resolved when they give problems.
One more header off from legacyheaders/.
Most of the changes are scripted replacement of include paths. Exceptions:
- #includes in the moved file were cleaned up slightly, and include guards adjusted.
- Places where it was included as "gromacs/legacyheaders/vec.h" were handled manually and the include order adjusted.
- Removal of unnecessary #include "vec.h" from update.h revealed some transitive dependencies that were fixed. Some associated include order cleanup in these files.
- Removed some duplicate includes.
- Remove dependency from linearalgebra/matrix.c to vec.h (only needed for a single sqr()) to avoid a cyclic math <-> linearalgebra dependency.

In the long run, this may be better outside utility/ to better distinguish code that depends on 'real' from parts that do not. Currently, it would create a lot of cyclic dependencies everywhere else.
Revision 2cc66cb6 - 04/28/2014 04:24 AM - Roland Schulz

Reduced usage of typedefs.h

Preliminary step to move types out of legacyheader.

Renamed parameter called "matrix" because cppcheck gets confused if a parameter is called the same as a type.

Part of #1415

Change-Id: i9207a7b8de7f092bab890da128abb48a8d97b79

Revision 604cd696 - 05/14/2014 09:33 PM - Teemu Murtola

Move physics.* to math/units.*

- Remove some unnecessary #includes.
- Remove the dummy tests; easy to rewrite as usable tests using GTest if someone needs those. They were anyways testing code that no one is still calling, even though it was introduced several years ago.
Now gmxlib is free of _test.c files.

Now, only one file using atom_id is keeping math/ dependent on legacyheaders/.

Part of #1415.

Change-Id: i31312b92cf9f5d1299f9d031cf27be2f7afaf

Revision 2b5c9ac3 - 09/22/2015 01:34 PM - David van der Spoel

Removed legacyheaders/types/commrec_fwd.h from typedefs.h

Related to #1415

Change-Id: i9a9dd7f1e62cdd040d183370d187f6a23ede78fa

Revision 6cc4d3e - 11/03/2015 09:26 PM - David van der Spoel

Moved df_history utility routines from typedefs to new file.

Part of #1415.

Change-Id: ila2b9e6e5342cb3b5820894fb82ef2908d969bc6

Revision 2a9f0384 - 11/11/2015 12:53 AM - David van der Spoel

Removed legacyheaders/typedefs.h

More cleaning up in legacyheaders. Mostly this patch involves shuffling around include files, and adding a couple of forward declarations. Renames gmxlib/typedefs." to mdotypes/state." and introduces new utility/init64_to_int.cpp with header.
Introduced new directory mdotypes to resolve circular dependencies.
Right now state." and history files are the only files living there.

Part of #1415

Change-Id: i5dc59a2ca3bd1f9c5391f4b9def9f116b30106fc

Revision 890ce4e8 - 11/11/2015 10:10 PM - David van der Spoel

Moved inputrec." from gmxlib and legacyheaders to mdotypes.

Part of #1415

Change-Id: ldb00712d1b6ea9648a36d349f670790aaaf2c6d4

Revision 4034c03 - 11/12/2015 08:44 AM - David van der Spoel

Moved copyrite." to fileio from gmxlib and legacyheaders.

Part of #1415

Change-Id: ld6c984cc668f88731fac7d80053aad9b828806
Revision 56a31f36 - 11/12/2015 04:37 PM - David van der Spoel
Moved txtdump.* to fileio.

Some cleanups in edsam.cpp too.

Part of #1415

Change-Id: I6cd58951eff1bac0dad75dbd448a958e57c767e7

Revision 99e6a7cc - 11/13/2015 08:05 AM - David van der Spoel
Moved genborn.h to mdlib

Part of #1415

Change-Id: Ia2d734be40df97426348a153040cf311a3abf7a3

Revision e8e13a0e - 11/15/2015 10:21 AM - David van der Spoel
Moved legacyheaders/types/state.h into mdtypes/state.h
Also merged swap/enum.h into legacyheaders/types/enums.h
to be moved later out of legacyheaders.
Part of #1415, #1854.

Change-Id: le53f190d6798b81c531896de80ef25c060836479

Revision a3be7872 - 11/15/2015 01:46 PM - David van der Spoel
Moved legacyheaders/types/inputrec.h into mdtypes/inputrec.h

Part of #1415.

Change-Id: I39885a01474173170bc6a7a7c2e54e7f21d64370

Revision a8a355f0 - 11/20/2015 02:02 AM - David van der Spoel
Moved legacyheaders/types/energy.h to mdtypes.

Part of #1415

Change-Id: I65a00cc49110a09edfa7c7520a7a480f73b5165c

Revision 386dedc8 - 11/20/2015 09:19 AM - David van der Spoel
Moved mdatom.h from legacyheader/types to mdtypes.
Add doxygen comments to the elements of the structure.

Part of #1415.

Change-Id: l811ad4782dd482ac7fe198c85c85b91a6e20b67

Revision ca3bb88c - 11/20/2015 09:51 AM - David van der Spoel
Merged legacyheaders/nrnb.h and types/nrnb.h to gmxlib.

Part of #1415

Change-Id: l33922419a6a5a7976bda12fd81e2d752eb0c5c6d

Revision f75bc658 - 11/20/2015 03:44 PM - David van der Spoel
Combine enums.h and names*.  
Combined enums.h and names* to mdtypes/md Enums.cpp/h.
Added doxygen comments to mdEnums.h
Removed macros in inputrec.h to reduce cyclic dependencies.
Clean up of legacyheaders. By removing some unnecessary includes
from the files names.h and enums.h (now mdEnums.h)
a lot of 'freeriders' showed up, therefore had to include
topology.h in many files.

Part of #1415
Revision e5a42060 - 11/20/2015 06:18 PM - David van der Spoel
Merged legacyheaders/types/ns.h and nblist.h to mdtypes/nblist.h
Also parts moved out of forcerec.h.
In order to make this work some parts of the forcerec structure had to be made pointers, and the same for nblist structures.
Part of #1415.
Change-Id: laaad76ccca001a11371b9a0ad1b75a727732f00

Revision 806e77b1 - 11/20/2015 08:19 PM - David van der Spoel
Moved legacyheaders/types/group.h to mdtypes.
Part of #1415.
Change-Id: l959941cf588b90e97359e8ec026dc923ff78aa5

Revision 87f0b419 - 11/21/2015 11:51 AM - David van der Spoel
Merged genborn.h from legacyheaders/types into mdtypes/genborn.h
Part of #1415.
Change-Id: l2c9dbdb827219649791183d016bf07d056a9ca049

Revision 6abe0013 - 11/22/2015 02:15 PM - David van der Spoel
Cleanups in legacyheader/types/commrec.h
Removed superfluous typedefs from above file.
Part of #1415.
Change-Id: lf3d99dc24864d21d9bfa2eaf57fd5264f7d3d9ec

Revision 1cd9683a - 11/23/2015 03:11 PM - David van der Spoel
Moved domdec structures out of commrec.h.
In order to clean up the legacyheaders directory here the structures relating to domain decomposition are taken out of commrec.h and moved to a new file domdec/domdec_struct.h
To not introduce new cyclic dependencies modified the interface of write_checkpoint and gmx_fatal_collective.
Part of #1415
Change-Id: f485a03eddbb87dcc236b7e2e7d85d03383d86f61

Revision ca26ed98 - 11/30/2015 11:52 AM - Teemu Murtola
Merge remaining legacyheaders/types/ to mdtypes/
One cyclic dependency suppressed for now.
legacyheaders/ is no more.
Closes #1415 (but this just moves us to the next phase of the clean-up)
Change-Id: le80d24d347abc61216002a309cb411818dc99b6b

Revision 5922c55f - 12/12/2015 04:17 AM - Mark Abraham
Broke up copyright.*
Split unrelated content into binaryinformation.* and pleasecite.*, and move them to utility/. This removes functionality from fileio that does not really belong there, and helps in removing cyclic dependencies.
One new cyclic dependency suppressed for now; it will disappear with
simplification of gmx_invsqrt().

Part of #1415.

Change-Id: i65f0776d46852783d30cf1a28dd22d614dde125

History

#1 - 01/07/2014 06:52 PM - Gerrit Code Review Bot
Gerrit received a related patchset '1' for Issue #1415.
Uploader: Carsten Kutzner (ckutzne@gwdg.de)
Change-Id: if4af498470c5200d50ac11b1b5537917c873380b5
Gerrit URL: https://gerrit.gromacs.org/2961

#2 - 01/13/2014 05:20 PM - Gerrit Code Review Bot
Gerrit received a related patchset '1' for Issue #1415.
Uploader: Carsten Kutzner (ckutzne@gwdg.de)
Change-Id: le1ed3543b84651d1bff0f11f5b2342850f5c22
Gerrit URL: https://gerrit.gromacs.org/2979

#3 - 01/17/2014 06:38 PM - Gerrit Code Review Bot
Gerrit received a related patchset '1' for Issue #1415.
Uploader: Mark Abraham (mark.j.abraham@gmail.com)
Change-Id: le7967d7d7161df684d530e3c2d982486a3cd128f
Gerrit URL: https://gerrit.gromacs.org/2993

#4 - 03/31/2014 08:23 PM - Gerrit Code Review Bot
Gerrit received a related patchset '1' for Issue #1415.
Uploader: Teemu Murtola (teemu.murtola@gmail.com)
Change-Id: lc438d501ebf5ecc285655a9e82f625eb12f1d1
Gerrit URL: https://gerrit.gromacs.org/3311

#5 - 04/01/2014 06:10 AM - Gerrit Code Review Bot
Gerrit received a related patchset '1' for Issue #1415.
Uploader: Teemu Murtola (teemu.murtola@gmail.com)
Change-Id: lff8280019e2b41ef74bcabc2b02364917e43d58
Gerrit URL: https://gerrit.gromacs.org/3318

#6 - 04/05/2014 05:32 AM - Gerrit Code Review Bot
Gerrit received a related patchset '1' for Issue #1415.
Uploader: Teemu Murtola (teemu.murtola@gmail.com)
Change-Id: l6e487566d5b7c9ec7a1455a2d31bbd6d645bada3
Gerrit URL: https://gerrit.gromacs.org/3328

#7 - 04/13/2014 07:19 PM - Gerrit Code Review Bot
Gerrit received a related patchset '1' for Issue #1415.
Uploader: Teemu Murtola (teemu.murtola@gmail.com)
Change-Id: l4c3f00ec0f546dd929512e532d8efb11da3694
Gerrit URL: https://gerrit.gromacs.org/3355

#8 - 04/15/2014 05:55 PM - Gerrit Code Review Bot
Gerrit received a related patchset '1' for Issue #1415.
Uploader: Teemu Murtola (teemu.murtola@gmail.com)
Change-Id: lb3d78bce52a4c034d72001164921edd56657a2
Gerrit URL: https://gerrit.gromacs.org/3365

#9 - 04/16/2014 06:03 AM - Gerrit Code Review Bot
Gerrit received a related patchset '1' for Issue #1415.
Uploader: Teemu Murtola (teemu.murtola@gmail.com)
Change-Id: lf7e6f6a221392f5510148807c979f950a885
Gerrit URL: https://gerrit.gromacs.org/3363

#10 - 04/16/2014 08:00 AM - Roland Schulz
I think we shouldn't have a new top level folder for each simulation method. This is getting quickly out of hand. We already have: imd, pulling, swap, essentialdynamics. Not as problematic (because the list probably won't grow quickly) but also quite long of a list is math related top-level folders (math, fft, linearalgebra, statistics). Would it make sense to make the last 3 subfolders?
I'm still a bit confused about the dependency checking scripts. What is the easiest approach to use them to know whether moving files into different (sub)folders will create cyclic dependencies?

#11 - 04/16/2014 09:12 AM - Teemu Murtola

In general, I agree that the current subdirectories are possibly too fine-grained. But it is easier to first create smaller units and then combine them, than to try to figure out in advance what kind of bigger units make most sense. So I think that the current approach is reasonable, but we should aim for a smaller amount of top-level folders once it is clear what can be combined and makes sense to combine. Folders with just one or a few files don't really make much sense.

Roland Schulz wrote:

I think we shouldn't have a new top level folder for each simulation method. This is getting quickly out of hand. We already have: imd, pulling, swap, essentialdynamics.

I agree. My initial thought was to put all these special methods under a specialmd/ folder or similar.

Not as problematic (because the list probably wont grow quickly) but also quite long of a list is math related top-level folders (math, fft, linearalgebra, statistics). Would it make sense to make the last 3 subfolders?

Possibly, fft/ and linearalgebra/ have a special purpose of wrapping external libraries, and as such, have some relatively complex internal logic. But it would be simpler if there could be dependencies in both directions. This would, e.g., allow putting the definition of real and rvec into math/.

I'm still a bit confused about the dependency checking scripts. What is the easiest approach to use them to know whether moving files into different (sub)folders will create cyclic dependencies?

Currently, you need to run make dep-graphs and view doxygen/depgraphs/module-deps.dot.png. It currently only shows folders one level below src/gromacs/, but that is possible to change (but requires some thinking to keep things clear, both in the graph and elsewhere). I've been thinking of adding a proper cycle detection into the script, but that is complicated by the currently existing cycles. I'll see whether that would still be possible.

#13 - 04/20/2014 08:09 PM - Gerrit Code Review Bot

Gerrit received a related patchset '1' for Issue #1415.
Uploader: Roland Schulz (roland@rschulz.eu)
Change-Id: l360ae1f22026c5 lvl90edbbbe136053fd2e1c0ad5b
Gerrit URL: https://gerrit.gromacs.org/3382

#15 - 04/21/2014 02:59 AM - Gerrit Code Review Bot

Gerrit received a related patchset '1' for Issue #1415.
Uploader: Roland Schulz (roland@rschulz.eu)
Change-Id: l9207a7b8de7f092bab890da1289abb48a8d97b79
Gerrit URL: https://gerrit.gromacs.org/3394

#17 - 05/20/2014 09:03 PM - Teemu Murtola

Roland Schulz wrote:

I'm still a bit confused about the dependency checking scripts. What is the easiest approach to use them to know whether moving files into different (sub)folders will create cyclic dependencies?
As a reference, https://gerrit.gromacs.org/#/c/3380/ now allows you to run make doc-check, and it will report any new cyclic dependencies that the changes create. Hopefully, existing cycles will not lead to too many confusing results with the algorithm that is currently used. Until it gets merged, you can just cherry-pick it on top of any change (it shouldn't conflict with much of anything). Just try not to push the cherry-picked version. ;)

#18 - 09/18/2015 08:58 PM - Gerrit Code Review Bot
Gerrit received a related patchset ‘4’ for Issue #1415.
Uploader: David van der Spoel (daviddvanderspoel@gmail.com)
Change-Id: l9a9dd771e622d040d183370d187f6a23e079fa
Gerrit URL: https://gerrit.gromacs.org/5082

#19 - 11/03/2015 05:17 PM - Gerrit Code Review Bot
Gerrit received a related patchset ‘1’ for Issue #1415.
Uploader: David van der Spoel (daviddvanderspoel@gmail.com)
Change-Id: la2b86e65342e5b582b8694fb2e2f3906d969bc6
Gerrit URL: https://gerrit.gromacs.org/5991

#20 - 11/04/2015 01:30 PM - Gerrit Code Review Bot
Gerrit received a related patchset ‘1’ for Issue #1415.
Uploader: David van der Spoel (daviddvanderspoel@gmail.com)
Change-Id: l65c59a2e6c1f19c5391f4b9de6b16b30106fc
Gerrit URL: https://gerrit.gromacs.org/5267

Gerrit received a related patchset ‘1’ for Issue #1415.
Uploader: David van der Spoel (daviddvanderspoel@gmail.com)
Change-Id: ld6cb84cc683f88731fac7d80053aad0b828806
Gerrit URL: https://gerrit.gromacs.org/5315

#22 - 11/11/2015 01:24 PM - Gerrit Code Review Bot
Gerrit received a related patchset ‘1’ for Issue #1415.
Uploader: David van der Spoel (daviddvanderspoel@gmail.com)
Change-Id: ldb00712d1b6ea9648a366d349f670790a9af26d4
Gerrit URL: https://gerrit.gromacs.org/5317

Gerrit received a related patchset ‘1’ for Issue #1415.
Uploader: David van der Spoel (daviddvanderspoel@gmail.com)
Change-Id: l6c58951e1ff1ba00dad75bd448a958a57c76e7
Gerrit URL: https://gerrit.gromacs.org/5319

#24 - 11/11/2015 10:00 PM - Gerrit Code Review Bot
Gerrit received a related patchset ‘1’ for Issue #1415.
Uploader: David van der Spoel (daviddvanderspoel@gmail.com)
Change-Id: la2d734be40df97426348a153040cf311a3ab7a3
Gerrit URL: https://gerrit.gromacs.org/5320

Gerrit received a related patchset ‘1’ for Issue #1415.
Uploader: David van der Spoel (daviddvanderspoel@gmail.com)
Change-Id: l12b86f1f82b7ace806aa2e0ee7d77604e86dc576
Gerrit URL: https://gerrit.gromacs.org/5321

Gerrit received a related patchset ‘1’ for Issue #1415.
Uploader: Mark Abraham (mark.i.abraham@gmail.com)
Change-Id: i65f077b6d46852783d30cfa28dd22d61d4de125
Gerrit URL: https://gerrit.gromacs.org/5322

#27 - 11/12/2015 08:35 PM - Gerrit Code Review Bot
Gerrit received a related patchset ‘1’ for Issue #1415.
Uploader: David van der Spoel (daviddvanderspoel@gmail.com)
Change-Id: i39885a01474173170bcb7a7c2e5e7121d64370
Gerrit URL: https://gerrit.gromacs.org/5326
Gerrit received a related patchset '1' for Issue #1415.
Uploader: David van der Spoel (davidvanderspoel@gmail.com)
Change-Id: Ie53f190d6798b815c531896de80ef25c060836479
Gerrit URL: https://gerrit.gromacs.org/5338

Gerrit received a related patchset '1' for Issue #1415.
Uploader: David van der Spoel (davidvanderspoel@gmail.com)
Change-Id: I65a00cc49110a09edf9af7520a7a480f73b5165c
Gerrit URL: https://gerrit.gromacs.org/5354

Gerrit received a related patchset '1' for Issue #1415.
Uploader: David van der Spoel (davidvanderspoel@gmail.com)
Change-Id: I811ad4772dd482ac7fe198c85c85b91af6e20b67
Gerrit URL: https://gerrit.gromacs.org/5355

Gerrit received a related patchset '1' for Issue #1415.
Uploader: David van der Spoel (davidvanderspoel@gmail.com)
Change-Id: I33922419a6a5a7976bda12d81e2d752eb0c5c6d
Gerrit URL: https://gerrit.gromacs.org/5357

Gerrit received a related patchset '1' for Issue #1415.
Uploader: David van der Spoel (davidvanderspoel@gmail.com)
Change-Id: Iaaadd76ccca001a11371b9a0ad1b75a72732f00
Gerrit URL: https://gerrit.gromacs.org/5359

Gerrit received a related patchset '1' for Issue #1415.
Uploader: David van der Spoel (davidvanderspoel@gmail.com)
Change-Id: I485a03eddb87dc32cc23587e2e7d85d03383d86f61
Gerrit URL: https://gerrit.gromacs.org/5361

Gerrit received a related patchset '1' for Issue #1415.
Uploader: David van der Spoel (davidvanderspoel@gmail.com)
Change-Id: I959941cf586b90e97359e8ec026d956a9ca049
Gerrit URL: https://gerrit.gromacs.org/5363

Gerrit received a related patchset '1' for Issue #1415.
Uploader: David van der Spoel (davidvanderspoel@gmail.com)
Change-Id: If3d99dc2486d21d0bbfa2eaf57df52647d39ec
Gerrit URL: https://gerrit.gromacs.org/5365

Gerrit received a related patchset '1' for Issue #1415.
Uploader: David van der Spoel (davidvanderspoel@gmail.com)
Change-Id: Ie80d24347acc61216002a309c4118f8d99b6b
Gerrit URL: https://gerrit.gromacs.org/5408

- Status changed from New to Fix uploaded
- Target version changed from 5.x to 2016
#39 - 12/01/2015 09:15 AM - Teemu Murtola
- Status changed from Fix uploaded to Resolved

Applied in changeset ca26ed983d1d628b0b7ccf603d9c7a68a4e8c91a.

#40 - 01/12/2016 08:25 PM - Teemu Murtola
- Status changed from Resolved to Closed