NUMA should probably not be used under Cygwin


Description
Patch 41fc4e43 apparently provided by Scott Field assumes that NUMA can be used under Cygwin. I have been able to find no evidence that it should. AFAIK pthreads should be fine under Cygwin.

Secondarily, src/gmxlib/thread_mpi/numa_malloc.c and include/thread_mpi/numa_malloc.h use some compiler flags to select whether to try to use NUMA, rather than the results of tests. Such tests only exist for CMake anyway, which raises the question why new functionality was added to the 4.5.5 release.

To resolve, I suggest changing the sense of the CYGWIN-related preprocessor conditionals in the above files. I'm happy to do this and test (so that we actually get some quality-assurance for 4.5.6), but perhaps this should be bounced to Scott for feedback.

Associated revisions
 Revision 0d2ee6f8 - 04/10/2012 03:09 AM - Mark Abraham
 Permit threads build on Cygwin
 Fixes #833
 Change-id: I1429629417132c164e9b017721c0035583d76bf

 Revision 0d2ee6f8 - 04/10/2012 03:09 AM - Mark Abraham
 Permit threads build on Cygwin
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 Revision 97bcc5be - 04/17/2012 11:15 AM - Mark Abraham
 Added Windows-specific #defines, and use them
 The lack of an elegant way to code "do this on Windows/Cygwin/whatever" may have contributed to 4.5.5 not compiling with threading under Cygwin (IssueID #833, which was fixed elsewhere).
 Change-id: I071a69825181e2b04cb8979889898f1d258d371

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 Change-id: I071a69825181e2b04cb8979889898f1d258d371

 Revision f57ec1b0 - 05/26/2012 06:28 AM - Mark Abraham
 Continuing to fix threading on Cygwin
 Fixes #833
 Change-id: f5d577a149ad18b295559f6d87c24dc42bfd281e
Continuing to fix threading on Cygwin

Fixes #833

Change-Id: i5d577a149ad18b295559f6d87c24dc42b7f281e

History

#1 - 04/11/2012 12:34 PM - Rossen Apostolov
- Assignee set to Mark Abraham
- Target version set to 4.5.6

Yes, please check with Scott

#2 - 04/11/2012 01:06 PM - Mark Abraham
Sander's commit (hash above) was based on things Scott provided, but I'm not going to contact Scott when I think the issue is likely to be Sander's apparently mistaken assumption that NUMA is available under Cygwin. If we're not likely to hear from Sander, then I think the fix in https://gerrit.gromacs.org/#/c/704/ resolves this issue.

#3 - 04/16/2012 01:48 PM - Rossen Apostolov
- Status changed from New to Closed