GROMACS - Bug #1547
MDRUN tools tests failed on armv7a with SIGBUS
07/02/2014 11:08 AM - Alexey Shvetsov

Status: Closed
Priority: Normal
Assignee: Magnus Lundborg
Category: core library
Target version: 5.1
Difficulty: uncategorized

Affect version:

Description

Also backtrace for mdrun-test

WARNING: Using the slow plain C kernels. This should not happen during routine usage on supported platforms.

starting mdrun 'spc-and-methanol'
6 steps, 0.0 ps.

Program received signal SIGBUS, Bus error.
0xb682b6e0 in quantize_float (x=0x24, x@entry=0x9591bb, natoms=natoms@entry=3, nframes=1, nframes@entry=2, precision=0.000999999931, quant=0x2, quant@entry=0x959208) at /home/alexxy/Develop/gromacs/src/external/tng_io/src/compression/tng_compress.c:91
91 quant[iframe*natoms*3+i*3+j]=(int)floor((x[iframe*natoms*3+i*3+j]/precision)+0.5);
(gdb) bt
#0 0xb682b6e0 in quantize_float (x=0x24, x@entry=0x9591bb, natoms=natoms@entry=3, nframes=1, nframes@entry=2, precision=0.000999999931, quant=0x2, quant@entry=0x959208) at /home/alexxy/Develop/gromacs/src/external/tng_io/src/compression/tng_compress.c:91
#1 0xb682c7c0 in tng_compress_pos_float (pos=pos@entry=0x9591bb, natoms=3, nframes=2, desired_precision=desired_precision@entry=0.00100000005, speed=speed@entry=0, algo=0x2017728, nitems=0xbeffc30c) at /home/alexxy/Develop/gromacs/src/external/tng_io/src/compression/tng_compress.c:1279
#2 0xb6847cb0 in tng_compress (start_pos=<optimized out>, type=2 '\002', n_particles=2, n_frames=3115178625676096, block=0x9590c8, tng_data=0x9590c8) at /home/alexxy/Develop/gromacs/src/external/tng_io/src/lib/tng_io.c:4837
#3 0xb6b5cf60 in mdoutf_write_to_trajectory_files (fplog=0x200a7d0, cr=0x1df1b60, of=0x200ee40, mdof_flags=19, top_global=0x1ffe138, step=6, t=0.0060000000000000001, state_local=0x20101f0, state_global=0x201df38, f_global=0x702e08) at /home/alexxy/Develop/gromacs/src/gromacs/fileio/mdoutf.c:299
#4 0xb6b5c3b8 in do_md_trajectory_writing (fplog=0x1ffe138, cr=0x1df1b60, nfile=7351896, stepout=100, ir=0x1df0d20, top_global=0x1ffe138, fcd=0x1ffe298, state_global=0x201df38, mdebin=0x701d30, ekind=0x702e58, wcycle=0x0, bRerunMD=0, bLastStep=1, bDoConfOut=4096, bSumEkinhOld=0) at /home/alexxy/Develop/gromacs/src/gromacs/fileio/trajectory_writing.c:146
#5 0x00045078 in do_md (fplog=0x6, cr=0x1df1b60, nfile=0, nenv=0x0, oenv=0x200000e0, Flags=105574405/03/2020
#15 0x00090114 in HandleSehExceptionsInMethodIfSupported<testing::Test, void> (location=0xa2578 "the test body", method=&virtual testing::Test::TestBody(), object=0x60cec0) at /home/alexxy/Develop/gromacs/src/external/gmock-1.7.0/gtest/src/gtest.cc:2078
2078     return (object->*method)();
(gdb) up
#16 testing::internal::HandleExceptionsInMethodIfSupported<testing::Test, void> (object=object@entry=0x60cec0, method=&virtual testing::Test::TestBody(), location=location@entry=0xa2578 "the test body") at /home/alexxy/Develop/gromacs/src/external/gmock-1.7.0/gtest/src/gtest.cc:2114
2114     return HandleSehExceptionsInMethodIfSupported(object, method, location);
(gdb) up
#17 0x00086c94 in testing::Test::Run (this=0x60cec0) at /home/alexxy/Develop/gromacs/src/external/gmock-1.7.0/gtest/src/gtest.cc:2326
2326     test->Run();
(gdb) up
#18 0x00086fa0 in testing::TestInfo::Run (this=test<optimized out>) at /home/alexxy/Develop/gromacs/src/external/gmock-1.7.0/gtest/src/gtest.cc:2301
2301     if (!should_run_) return;
(gdb) up
#20 testing::TestCase::Run (this=test<optimized out>) at /home/alexxy/Develop/gromacs/src/external/gmock-1.7.0/gtest/src/gtest.cc:2444
2444     GetMutableTestInfo(i)->Run();
(gdb) up
#21 0x00087470 in HandleSehExceptionsInMethodIfSupported<testing::internal::UnitTestImpl, bool> (location=0xa26e4 "auxiliary test code (environments or event listeners)" method=0x8707c <testing::internal::UnitTestImpl::RunAllTests()>, object=0xb4ca8) at /home/alexxy/Develop/gromacs/src/external/gmock-1.7.0/gtest/src/gtest.cc:2078
2078     return (object->*method)();
(gdb) up
#24 HandleExceptionsInMethodIfSupported<testing::internal::UnitTestImpl, bool> (location=0xa26e4 "auxiliary test code (environments or event listeners)" method=0x8707c <testing::internal::UnitTestImpl::RunAllTests()>, object=0xb4ca8) at /home/alexxy/Develop/gromacs/src/external/gmock-1.7.0/gtest/src/gtest.cc:2114
2114     return HandleSehExceptionsInMethodIfSupported(object, method, location);
(gdb) up
#25 testing::UnitTest::Run (this<optimized out>) at /home/alexxy/Develop/gromacs/src/external/gmock-1.7.0/gtest/src/gtest.cc:3929
3929     return ::testing::UnitTest::GetInstance()->Run();
(gdb) up
#26 0x0002f558 in RUN_ALL_TESTS () at /home/alexxy/Develop/gromacs/src/external/gmock-1.7.0/gtest/include/gtest/gtest.h:2288
2288     return ::testing::UnitTest::GetInstance()->Run();
(gdb) up
#27 main (argc=193880, argv=0xbeffef14) at /home/alexxy/Develop/gromacs/src/testutils/unittest_main.cpp:63
63     int errcode = RUN_ALL_TESTS();
(gdb) up
Initial frame selected; you cannot go up.
Related issues:
Related to GROMACS - Bug #1559: Writing TNG files fails on Xeon Phi Closed 07/10/2014
Is duplicate of GROMACS - Bug #1542: two unit tests fail on 32-bit ARM Closed 06/30/2014
Associated revisions

Revision 898166c3 - 08/21/2014 05:33 PM - Magnus Lundborg

Fixed TNG memory alignment problem and reset pointers.

This is a temporary fix to the memory alignment problems on some platforms. In the main TNG repository the whole I/O system is rewritten to address this problem. This fix is to avoid the problems without making too large changes.

There are also some pointers that were not reset after memory was freed. This is also fixed in here.

This commit does not correspond to any commit in the TNG repository.

Fixes #1542, #1546, #1547 and #1559.

Change-Id: I90a64066ccbc43fd57d4123c2b661019c1f7763e8

History

#1 - 07/02/2014 12:00 PM - Teemu Murtola
- Is duplicate of Bug #1542: two unit tests fail on 32-bit ARM added

#2 - 07/02/2014 01:01 PM - Magnus Lundborg
- Assignee set to Magnus Lundborg

#3 - 07/02/2014 01:02 PM - Magnus Lundborg
- Status changed from New to In Progress

#4 - 07/03/2014 02:35 PM - Mark Abraham
- Description updated

#5 - 07/11/2014 10:32 AM - Magnus Lundborg
- Related to Bug #1559: Writing TNG files fails on Xeon Phi added

#6 - 07/11/2014 11:53 AM - Gerrit Code Review Bot
Gerrit received a related patchset '1' for Issue #1547.
Uploader: Magnus Lundborg (magnus.lundborg@sciifelab.se)
Change-Id: I96e0704d3858264ca9187605f1d76562b74db7esa
Gerrit URL: https://gerrit.gromacs.org/3799

#7 - 07/11/2014 12:38 PM - Magnus Lundborg
- Status changed from In Progress to Fix uploaded

#8 - 07/15/2014 09:11 AM - Teemu Murtola
- Category changed from testing to core library
- Target version changed from 5.x to 5.1

#9 - 08/25/2014 06:15 AM - Roland Schulz
- Status changed from Fix uploaded to Closed