Charm++ - Bug #1959
examples/charm++/TRAM/randomAccessGroup crashes on mpi-win-x86_64-smp with debug options (-g -O0)

08/07/2018 04:37 PM - Nitin Bhat

<table>
<thead>
<tr>
<th>Status:</th>
<th>New</th>
<th>Start date:</th>
<th>08/07/2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority:</td>
<td>High</td>
<td>Due date:</td>
<td></td>
</tr>
<tr>
<td>Assignee:</td>
<td>Raghavendra Kanakagiri</td>
<td>% Done:</td>
<td>0%</td>
</tr>
<tr>
<td>Category:</td>
<td></td>
<td>Estimated time:</td>
<td>0.00 hour</td>
</tr>
<tr>
<td>Target version:</td>
<td></td>
<td>Spent time:</td>
<td>0.00 hour</td>
</tr>
</tbody>
</table>

Description
Charm build command: ./build LIBS mpi-win-x86_64_smp --enable-error-checking --without-romio --suffix=debug -j8 -g -O0 | tee build_result_debug

$ make test
./random_access 14

Running on 4 processors: ./random_access 14
charmrun> /cygdrive/c/Program Files/Microsoft MPI/Bin/mpiexec -n 4 ./random_access 14

Charm++> Running on MPI version: 2.0
Charm++> level of thread support used: MPI_THREAD_FUNNELED (desired: MPI_THREAD_FUNNELED)
Charm++> Running in SMP mode: 4 processes, 1 worker threads (PEs) + 1 comm threads per process, 0 PEs total
Charm++> The comm. thread both sends and receives messages
Charm++ warning: fences and atomic operations not available in native assembly
Converse/Charm++ Commit ID: v6.8.2-853-g4146bf788
Charm++> Disabling isomalloc because mmap() does not work.
CharmLB> Load balancer assumes all CPUs are same.
Charm++> Running on 1 hosts (1 sockets x 4 cores x 2 PUs = 8-way SMP)
Charm++> cpu topology info is gathered in 0.000 seconds.
Global table size = 2^14 * 4 = 65536 words
Number of processors = 4
Number of updates = 262144
Aggregation topology: 4 1
CPU time used = 0.093000 seconds
0.002818755 Billion(10^9) Updates per second [GUP/s]
0.000704689 Billion(10^9) Updates/PE per second [GUP/s]

job aborted:
[ranks] message
[0-2] terminated

[3] process exited without calling finalize

---- error analysis -----

[3] on CS-DEXTERITY
./random_access ended prematurely and may have crashed. exit code 0xc0000417

---- error analysis -----

History
#1 - 08/07/2018 04:40 PM - Nitin Bhat
examples/charm++/TRAM/randomAccessArray also fails in a similar manner. However, aggregateRandomAccessArray and aggregateRandomAccessGroup run successfully.
Output from examples/charm++/TRAM/randomAccessArray crash:

$ make test
./.../.../bin/charm randomAccess.ci
./.../.../bin/charm randomAccess.C
randomAccess.C
./.../.../bin/charm -language charm++ -o random_access randomAccess.o -module NDMeshStreamer
moduleinit3376.C
Ignored Unrecognized argument -Wl,--export-dynamic
./.../.../bin/testrun +p4 . ./random_access 14 8

Running on 4 processors: ./random_access 14 8
charmrun> /cygdrive/c/Program Files/Microsoft MPI/Bin/mpiexec -n 4 ./random_access 14 8

Charm++> Running on MPI version: 2.0
Charm++> level of thread support used: MPI_THREAD_FUNNELED (desired: MPI_THREAD_FUNNELED)
Charm++> Running in SMP mode: 4 processes, 1 worker threads (PEs) + 1 comm threads per process, 0 PEs total
Charm++> The comm. thread both sends and receives messages
Charm++ warning> fences and atomic operations not available in native assembly
Converse/Charm++ Commit ID: v6.8.2-853-g4146bf788
Charm++> Disabling isomalloc because mmap() does not work.
CharmLB> Load balancer assumes all CPUs are same.
Charm++> Running on 1 hosts (1 sockets x 4 cores x 2 PUs = 8-way SMP)
Charm++> cpu topology info is gathered in 0.000 seconds.
Number of processors = 4
Number of updates = 262144
Aggregation topology: 4 1

job aborted:
[ranks] message

[0] process exited without calling finalize

[1-3] terminated

----- error analysis ----- 

[0] on CS-DEXTERITY
./random_access ended prematurely and may have crashed. exit code 0xc0000417

----- error analysis ----- 
#2 - 08/21/2018 03:09 PM - Evan Ramos
- Target version deleted (6.9.0)

#3 - 09/27/2018 01:52 PM - Eric Bohm
- Assignee set to Raghavendra Kanakagiri