**1. b+tree**

**GPGPU-Sim PTX: \_\_cudaRegisterFunction findK : hostFun 0x0x405a30, fat\_cubin\_handle = 1**

**Cound not find ./kernel/kernel\_gpu\_cuda\_wrapper.cu**

**b+tree.out: cuda\_runtime\_api.cc:1523: cuobjdumpPTXSection\* findPTXSection(std::string): Assertion `0 && "Could not find the required PTX section"' failed.**

**Aborted (core dumped)**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/b+tree$**

**2.dwt2d**

**GPGPU-Sim PTX: \_\_cudaRegisterFatBinary, fat\_cubin\_handle = 2, filename=dwt.cu**

**GPGPU-Sim PTX: \_\_cudaRegisterFatBinary, fat\_cubin\_handle = 3, filename=components.cu**

**GPGPU-Sim PTX: \_\_cudaRegisterFunction \_Z20c\_CopySrcToComponentIiEvPT\_Phi : hostFun 0x0x404690, fat\_cubin\_handle = 3**

**Cound not find components.cu**

**dwt2d: cuda\_runtime\_api.cc:1523: cuobjdumpPTXSection\* findPTXSection(std::string): Assertion `0 && "Could not find the required PTX section"' failed.**

**Aborted (core dumped)**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/dwt2d$**

**3. heartwall**

**ERROR: usage: heartwall <inputfile> <num of frames>**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/heartwall$**

**4.hybridsort**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/hybridsort$ make**

**/home/gpgpu-sim/cuda/toolkit/4.2/cuda/bin/nvcc -arch=sm\_20 bucketsort.cu mergesort.cu main.cu -o hybridsort**

**bucketsort.cu:10:21: fatal error: GL/glew.h: No such file or directory**

**compilation terminated.**

**make: \*\*\* [hybridsort] Error 1**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/hybridsort$**

**5.kmeans**

**gpgpu\_simulation\_time = 0 days, 0 hrs, 0 min, 29 sec (29 sec)**

**gpgpu\_simulation\_rate = 46475 (inst/sec)**

**gpgpu\_simulation\_rate = 2605 (cycle/sec)**

**GPGPU-Sim: synchronize waiting for inactive GPU simulation**

**GPGPU-Sim API: Stream Manager State**

**GPGPU-Sim: detected inactive GPU simulation thread**

**iterated 8 times**

**Number of Iteration: 1**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/kmeans$ ./kmeans -i ../../data/kmeans/100**

**6.lavaMD**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/lavaMD$ make**

**gcc main.o \**

**./kernel/kernel\_gpu\_cuda\_wrapper.o \**

**./util/num/num.o \**

**./util/timer/timer.o \**

**./util/device/device.o \**

**-lm \**

**-L/usr/local/cuda/lib64 \**

**-lcuda -lcudart \**

**-lgomp \**

**-o lavaMD**

**/usr/bin/ld: cannot find -lcudart**

**collect2: ld returned 1 exit status**

**make: \*\*\* [a.out] Error 1**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/lavaMD$**

**7.** **hotspot**

**gpgpu\_simulation\_time = 0 days, 0 hrs, 0 min, 2 sec (2 sec)**

**gpgpu\_simulation\_rate = 10569 (inst/sec)**

**gpgpu\_simulation\_rate = 1031 (cycle/sec)**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/hotspot$ ./hotspot 2/2 1 1 ../../data/hotspot/temp\_64 ../../data/hotspot/power\_64 ../../data/hotspot/output.txt**

**8.leukocyte**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/leukocyte/CUDA$ ./leukocyte**

**usage: ./leukocyte <input file> <number of frames to process>gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/leukocyte/CUDA$**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/leukocyte/CUDA$ ./leukocyte**

**usage: ./leukocyte <input file> <number of frames to process>gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodiniagpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/leukocyte/CUDA$ ./leukocyte**

**usage: ./leukocyte <input file> <number of frames to process>gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/leukocyte/CUDA$**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/leukocyte/CUDA$**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/leukocyte/CUDA$ ./leukocyte ../../../data/leukocyte/testfile.avi 30**

**Detecting cells in frame 0**

**GICOV kernel error: no CUDA-capable device is detected**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/leukocyte/CUDA$**

**9.lud**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/lud$ make**

**cd cuda; make**

**make[1]: Entering directory `/home/gpgpu-sim/Downloads/rodinia\_3.0/cuda/lud/cuda'**

**make[1]: Nothing to be done for `all'.**

**make[1]: Leaving directory `/home/gpgpu-sim/Downloads/rodinia\_3.0/cuda/lud/cuda'**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/lud$**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/lud/cuda$**

**./lud\_cuda -v -s 60 -i ../../../data/lud/64.dat >> /home/gpgpu-sim/Downloads/rodinia\_3.0/data/lud/output64\_0002.txt**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/lud/cuda$**

**10.mummergpu**

**GPGPU-Sim PTX: Execution warning: Not finished implementing "void \_\_cudaRegisterTexture(void\*\*, const textureReference\*, const void\*\*, const char\*, int, int, int)"**

**Usage: mummergpu [options] reference.fa query.fa**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/mummergpu/bin$**

**11.mummergpu**

**Cuda driver error 3 in file 'mummergpu.cu' in line 468.**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/mummergpu/bin$ ./mummergpu ../data/shortref.fa ../data/shortqry.fa**

**12.myocyte**

**Finished parsing .elf file \_cuobjdump\_1.elf**

**Parsing .ptx file \_cuobjdump\_1.ptx**

**Finished parsing .ptx file \_cuobjdump\_1.ptx**

**Parsing .sass file \_cuobjdump\_1.sass**

**syntax error near "a000" on line 5325**

**GPGPU-Sim PTX: ERROR \*\* could not execute $GPGPUSIM\_ROOT/build/$GPGPUSIM\_CONFIG/cuobjdump\_to\_ptxplus/cuobjdump\_to\_ptxplus \_cuobjdump\_1.ptx \_cuobjdump\_1.sass \_cuobjdump\_1.elf \_ptxplus\_T06tsm**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/myocyte$echo $GPGPUSIM\_ROOT**

**/home/gpgpu-sim/gpgpu-sim\_distribution**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/myocyte$ $GPGPUSIM\_CONFIG**

**bash: gcc-4.6.4/cuda-4020/release: No such file or directory**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/myocyte$echo $GPGPUSIM\_CONFIG**

**gcc-4.6.4/cuda-4020/release**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/myocyte$ sudo ./myocyte.out 100 100 1**

**[sudo] password for gpgpu-sim:**

**./myocyte.out: error while loading shared libraries: libcudart.so.4: cannot open shared object file: No such file or directory**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/myocyte$**

**13.**

**Problem**: When executing a CUDA program under Linux, you get the following error:

error while loading shared libraries: libcudart.so.2: cannot open shared object file: No such file or directory

**Solution**: You need to add the path to the CUDA libraries to your $LD\_LIBRARY\_PATH environment variable.   
  
**Explanation**:   
When a CUDA program is executed, it needs to dynamically link to the CUDA runtime libraries. By default, these libraries are located in the /usr/local/cuda/lib directory. When searching for these libraries, the operating system looks in directories specified in the $LD\_LIBRARY\_PATH environment variable. If the CUDA library directory is not specified here, the program will fail with the error shown above.   
  
There are two solutions (these assume you are using the bash shell, which is the default CS Department shell):

1. Run the following command:

export LD\_LIBRARY\_PATH=$LD\_LIBRARY\_PATH:/usr/local/cuda/lib

This change is not persistent and will need to be re-run each time you log in.

1. Edit your .profile file (located at ~/.profile). Find the line that sets the $LD\_LIBRARY\_PATH variable, which should look similar to the following:

LD\_LIBRARY\_PATH="/usr/lib:/usr/openwin/lib:/usr/dt/lib:/X11.6/lib:/X11.5/lib:/uva/lib:/gnu/lib"

Modify that line to add the path to the CUDA libraries:

LD\_LIBRARY\_PATH="/usr/lib:/usr/openwin/lib:/usr/dt/lib:/X11.6/lib:/X11.5/lib:/uva/lib:/gnu/lib:/usr/local/cuda/lib"

After editing the file, you either need to log out and log back in or run the following command:

source ~/.profile

This solution is persistent and only needs to be performed once.

**14.**

As of Cuda 5.5 and Ubuntu 12.04/12.10, the command above becomes (notice the Ubuntu and Cuda directory changes) for 64bit

ln -s /usr/local/cuda/lib64/libcuda.so.5.5 /usr/lib/libcuda.so.5.5

That is, the lib folders on Ubuntu as of 12.04 are lib32 and lib; the 64 is implicit, and cuda 5.5 and greater now installs to a different directory.

**15.**

[quote name='Ron12' date='01 May 2012 - 04:04 AM' timestamp='1335866647' post='1402958']  
I have solved the issue.   
Now I use mpirun -x LD\_LIBRARY\_PATH... to execute the job and everything works like a charm :)  
I tried running my MPI + CUDA code by using -x LD\_LIBRARY\_PATH, but it's still giving me **error while loading shared libraries: libcudart.so.3: cannot open shared object file: No such file or directory**.  
I ran via terminal:**mpirun -machinefile machines -x /usr/local/cuda/lib64 -np 6 ./mpicuda**

**16. error while loading shared libraries: libcudart.so.4: cannot open shared object file: No such file or directory**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/myocyte$ sudo ./myocyte.out 100 100 1 -x /home/gpgpu-sim/cuda/toolkit/4.2/cuda/lib64**

**./myocyte.out: error while loading shared libraries: libcudart.so.4: cannot open shared object file: No such file or directory**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/myocyte$ sudo ln -s /home/gpgpu-sim/cuda/toolkit/4.2/cuda/lib64/libcudart.so.4 /usr/lib/libcudart.so.4**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/myocyte$**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/myocyte$ sudo ./myocyte.out 100 100 1**

**modprobe: FATAL: Module nvidia not found.**

**Time spent in different stages of the application:**

**0.000007000000 s, 0.003003454069 % : SETUP VARIABLES**

**0.158351004124 s, 67.942848205566 % : ALLOCATE CPU MEMORY AND GPU MEMORY**

**0.074441000819 s, 31.940015792847 % : READ DATA FROM FILES, COPY TO GPU MEMORY**

**0.000040999999 s, 0.017591658980 % : RUN GPU KERNEL**

**0.000033000000 s, 0.014159140177 % : COPY GPU DATA TO CPU MEMORY**

**0.000192000007 s, 0.082380451262 % : FREE MEMORY**

**Total time:**

**0.233064994216 s**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/myocyte$**

**17.nn**

**GPGPU-Sim PTX: loading constants with explicit initializers... done.**

**error opening a db**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/nn$ ./nn ../../data/nn/filelist.txt -r 3 -lat 30 -lng 90**

**18.nw**

**WG size of kernel = 16**

**Usage: ./needle <max\_rows/max\_cols> <penalty>**

**<dimension> - x and y dimensions**

**<penalty> - penalty(positive integer)**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/nw$ ./needle 32 32 10**

**18. particlefilter\_float**

**VIDEO SEQUENCE TOOK 0.000043**

**TIME TO SEND TO GPU: 0.005156**

**GPGPU-Sim: synchronize waiting for inactive GPU simulation**

**GPGPU-Sim API: Stream Manager State**

**GPGPU-Sim: detected inactive GPU simulation thread**

**GPU Execution: 0.000248**

**FREE TIME: 0.000051**

**TIME TO SEND BACK: 0.018219**

**SEND ARRAY X BACK: 0.000999**

**SEND ARRAY Y BACK: 0.000548**

**SEND WEIGHTS BACK: 0.016621**

**XE: 0.000000**

**YE: 0.000000**

**0.000000**

**PARTICLE FILTER TOOK 0.024220**

**ENTIRE PROGRAM TOOK 0.024263**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/particlefilter$** **./particlefilter\_float -x 1 -y 1 -z 1 -np 1**

**naive.out -x <dimX> -y <dimY> -z <Nfr> -np <Nparticles>**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/particlefilter$ ./particlefilter\_naive**

**19.** **gpgpu\_simulation\_time = 0 days, 0 hrs, 0 min, 6 sec (6 sec)**

**gpgpu\_simulation\_rate = 20773 (inst/sec)**

**gpgpu\_simulation\_rate = 1752 (cycle/sec)**

**5 4 5 7 0 3 0 8 2 2**

**24 16 21 18 12 10 8 8 15 30**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/pathfinder$ ./pathfinder 10 10 1**

**19.srad**

**gpgpu\_simulation\_time = 0 days, 0 hrs, 0 min, 6 sec (6 sec)**

**gpgpu\_simulation\_rate = 21384 (inst/sec)**

**gpgpu\_simulation\_rate = 1739 (cycle/sec)**

**Time spent in different stages of the application:**

**0.000008000000 s, 0.000165056335 % : SETUP VARIABLES**

**0.000017000000 s, 0.000350744725 % : READ COMMAND LINE PARAMETERS**

**0.213783994317 s, 4.410800457001 % : READ IMAGE FROM FILE**

**0.000021000000 s, 0.000433272857 % : RESIZE IMAGE**

**0.004269999918 s, 0.088098816574 % : GPU DRIVER INIT, CPU/GPU SETUP, MEMORY ALLOCATION**

**0.000456999987 s, 0.009428842925 % : COPY DATA TO CPU->GPU**

**0.420426011086 s, 8.674246788025 % : EXTRACT IMAGE**

**3.889055967331 s, 80.239166259766 % : COMPUTE**

**0.317234009504 s, 6.545185089111 % : COMPRESS IMAGE**

**0.000600999978 s, 0.012399856932 % : COPY DATA TO GPU->CPU**

**0.000697000010 s, 0.014380533248 % : SAVE IMAGE INTO FILE**

**0.000258999993 s, 0.005343698896 % : FREE MEMORY**

**Total time:**

**4.846829891205 s**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/srad/srad\_v1$ ./srad 1 1 1 1**

**20.**  **./srad 128 128 0 31 0 21 0.5 2**

**gpgpu\_simulation\_time = 0 days, 0 hrs, 1 min, 36 sec (96 sec)**

**gpgpu\_simulation\_rate = 87449 (inst/sec)**

**gpgpu\_simulation\_rate = 271 (cycle/sec)**

**GPGPU-Sim: synchronize waiting for inactive GPU simulation**

**GPGPU-Sim API: Stream Manager State**

**GPGPU-Sim: detected inactive GPU simulation thread**

**Computation Done**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/srad/srad\_v2$ ./srad 128 128 0 31 0 21 0.5 2**

**21. streamcluster**

**usage: ./sc\_gpu k1 k2 d n chunksize clustersize infile outfile nproc**

**k1: Min. number of centers allowed**

**k2: Max. number of centers allowed**

**d: Dimension of each data point**

**n: Number of data points**

**chunksize: Number of data points to handle per step**

**clustersize: Maximum number of intermediate centers**

**infile: Input file (if n<=0)**

**outfile: Output file**

**nproc: Number of threads to use**

**if n > 0, points will be randomly generated instead of reading from infile.**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/streamcluster$**

**需要生成数据**

**22.backprop**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/backprop$ ./backprop > output.txt**

**usage: backprop <num of input elements>**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/backprop$ ./backprop 10 > output.txt**

**The number of input points must be divided by 16**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/backprop$ ./backprop 32 > output.txt**

**gpgpu-sim@gpgpusim-VirtualBox:~/Downloads/rodinia\_3.0/cuda/backprop$**