Suggestions to execute PerfExpert and MACPO

**LULUESH:**

This code is available at the directory "4", it has been optimized by specialists to run on Stampede. For that reason it only compiles with the Intel Compiler. To do so, run the following commands:

Enter the node:

$ ~/reserve

Load the Intel Compiler module:

$ module load intel

Enter the LULESH example directory:

$ cd 4

Compile both optimized and unoptimized codes:

$ icc -g -O3 -fopenmp -o lulesh lulesh.cc

$ icc -g -O3 -fopenmp -opt-streaming-stores

always -o lulesh\_opt lulesh\_opt.cc

Run both codes with PerfExpert:

$ OMP\_NUM\_THREADS=16 perfexpert lulesh

$ OMP\_NUM\_THREADS=16 perfexpert lulesh\_opt

Compare the results and leave the node:

$ exit

**Different number of threads:**

Run the matrix multiply example with different number of threads and compare the results. We suggest to run this code with 8 and 4 threads.

**Running a code which uses Makefile:**

Inside the directory “2” there is the Rodinia Back Propagation example. This code uses a Makefile file to compile.

Enter the node:

$ ~/reserve

Enter the Rodinia example directory:

$ cd 3

Run PerfExpert using the “-m” argument

$ OMP\_NUM\_THREADS=16 perfexpert –m –s backprop.c backprop 100000

Analyze the results and leave the node:

$ exit

**Running MACPO as a standalone tool:**