

Cilk instructions for PurdueNext

From the Principles of Concurrency course, click on Terminal for Cilk.

After typing

```
$ use cilk-4.8.1
```

```
Do you want to make 'use cilk-4.8.1' persistent? (y/n) y
smoore@PurdueNExT:~$ which gcc
/apps/share64/debian7/cilk/4.8.1/bin/gcc
smoore@PurdueNExT:~$ cd cilk
smoore@PurdueNExT:~/cilk$ ls
cilk_hello.c  mergesort_cilk.tar  tutorial-src.tar
mergesort_cilk  tutorial-src
smoore@PurdueNExT:~/cilk$ cd tutorial-src
smoore@PurdueNExT:~/cilk/tutorial-src$ ls
array-notations  keywords  reducers
smoore@PurdueNExT:~/cilk/tutorial-src$ cd keywords
smoore@PurdueNExT:~/cilk/tutorial-src/keywords$ ls
fib  fib.cpp
smoore@PurdueNExT:~/cilk/tutorial-src/keywords$ rm fib
smoore@PurdueNExT:~/cilk/tutorial-src/keywords$ g++ -o fib -fcilkplus fib.cpp
/tmp/cc5Zv0u7.o: In function `fib(int)':
fib.cpp:(.text+0x2f): undefined reference to `__cilkrts_enter_frame'
fib.cpp:(.text+0x14f): undefined reference to `__cilkrts_sync'
fib.cpp:(.text+0x16d): undefined reference to `__cilkrts_rethrow'
fib.cpp:(.text+0x1de): undefined reference to `__cilkrts_sync'
fib.cpp:(.text+0x1fc): undefined reference to `__cilkrts_rethrow'
fib.cpp:(.text+0x243): undefined reference to `__cilkrts_leave_frame'
fib.cpp:(.text+0x2ae): undefined reference to `__cilkrts_sync'
fib.cpp:(.text+0x2cc): undefined reference to `__cilkrts_rethrow'
fib.cpp:(.text+0x313): undefined reference to `__cilkrts_leave_frame'
/tmp/cc5Zv0u7.o: In function `main':
fib.cpp:(.text+0x393): undefined reference to `__cilkrts_set_param'
fib.cpp:(.text+0x3f2): undefined reference to `__cilkrts_get_nworkers'
/tmp/cc5Zv0u7.o: In function `__cilk_spawn_001':
fib.cpp:(.text+0x444): undefined reference to `__cilkrts_enter_frame'
fib.cpp:(.text+0x4a3): undefined reference to `__cilkrts_leave_frame'
fib.cpp:(.text+0x4fa): undefined reference to `__cilkrts_leave_frame'
collect2: error: ld returned 1 exit status
smoore@PurdueNExT:~/cilk/tutorial-src/keywords$ which gcc
/apps/share64/debian7/cilk/4.8.1/bin/gcc
smoore@PurdueNExT:~/cilk/tutorial-src/keywords$ █

smoore@PurdueNExT:~/cilk/tutorial-src/keywords$ export CILK_LIB_DIR=/apps/share64/debian7/cilk/4.8.1/lib64
smoore@PurdueNExT:~/cilk/tutorial-src/keywords$ ls $CILK_LIB_DIR/*cilkrts*
ls: cannot access /*cilkrts*: No such file or directory
smoore@PurdueNExT:~/cilk/tutorial-src/keywords$ ls $CILK_LIB_DIR/*cilkrts*
/apps/share64/debian7/cilk/4.8.1/lib64/libcilkrts.a  /apps/share64/debian7/cilk/4.8.1/lib64/libcilkrts.so.5
/apps/share64/debian7/cilk/4.8.1/lib64/libcilkrts.la  /apps/share64/debian7/cilk/4.8.1/lib64/libcilkrts.so.5.0.3520
/apps/share64/debian7/cilk/4.8.1/lib64/libcilkrts.so
smoore@PurdueNExT:~/cilk/tutorial-src/keywords$ g++ -o fib -fcilkplus fib.cpp -L$CILK_LIB_DIR -lcilkrts
smoore@PurdueNExT:~/cilk/tutorial-src/keywords$ ./fib

Fibonacci number #39 is 63245986.
Calculated in 9,590 seconds using 24 workers.
smoore@PurdueNExT:~/cilk/tutorial-src/keywords$
smoore@PurdueNExT:~/cilk/tutorial-src/keywords$ ./fib 16
Fibonacci number #39 is 63245986.
Calculated in 8,980 seconds using 16 workers.
smoore@PurdueNExT:~/cilk/tutorial-src/keywords$ ./fib 8
Fibonacci number #39 is 63245986.
Calculated in 6,890 seconds using 8 workers.
smoore@PurdueNExT:~/cilk/tutorial-src/keywords$ ./fib 4
Fibonacci number #39 is 63245986.
Calculated in 6,520 seconds using 4 workers.
smoore@PurdueNExT:~/cilk/tutorial-src/keywords$ ./fib 2
Fibonacci number #39 is 63245986.
Calculated in 6,390 seconds using 2 workers.
smoore@PurdueNExT:~/cilk/tutorial-src/keywords$ ./fib 1
Fibonacci number #39 is 63245986.
Calculated in 6,450 seconds using 1 workers.
smoore@PurdueNExT:~/cilk/tutorial-src/keywords$ █
```