

COMP 2355
Winter 2012
Lab #14
February 26, 2013

This lab should be submitted to your course SVN by noon on February 27 in a folder named “Lab14”.

In this lab you will modify Lab 13 to provide more efficient communication between the main thread and the worker threads:

- The worker threads should wait on a condition variable when there is no data available in the work queue.
- When data is put into the work queue, if the work queue is empty, the condition should be signaled so that the workers wake up and load data from the queue.

This same process will occur in reverse (using the same code) when sending data back from the workers to the main thread.

In addition, a size limit should be set on the queue. If the queue is full, the thread adding data to the queue should wait until the queue is reduced in size before it is allowed to insert new items into the queue.