

More Multithreading

1-28-2011

Opening Discussion

- Solutions to the IcP.
- Determining core count.

Parallel Data Structures

- BlockingQueue
- ConcurrentMap
- CountdownLatch
- CyclicBarrier
- Exchanger
- PriorityBlockingQueue
- Semaphore
- Scala provides some support for basic collections.

Locks

- More flexible than synchronized.
- Provides extra power when needed. Particularly for locking across method calls.

Atomics

- Data values with atomic access.
- Faster and easier than doing your own synchronization.

Playing with Code

- Our goal today is to play around with the code. We want to get some stuff running that uses parallelism and hopefully see it working.
- The Mandelbrot set example.
- Parallel sorting.

Minute Essay

- Next up is streams and networking. What questions do you have about multithreading?
- My hope is to incorporate multithreading into many things we do. Let me know if you have suggestions.