

Universal Consensus

Karan Agrawal

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1 Algorithm Explanation

1. **Classes:** Classes to implement various locks:-

- **Lock:** A simple template class with only two function declarations *lock()* and *unlock()*.
- **TASLock**
- **TTASLock**
- **Backoff:** to implement Backoff
- **BackoffLock**
- **ALock**
- **CLHLock**
- **MCSLock**
- **TOLock**

2. **Main Function**

- Firstly, iterating a loop for each lock
- Then iterating nested loop for a number of threads will run(1 to N=100).
- Storing time in microsecond for corresponding lock to number of threads(1 to N).
- then draw the graph for each lock with X-axis as number of threads and Y-axis as 1000/time.

2 Results: Graphs

1. In these graphs we can see the performance of various spin locks:

