

## Example: MCS non-NUMA Pseudocode

```
struct QNode { QNode* next }

QNode* current;

class Thread {
    QNode* myNode;
public void lock() {
    QNode* me = this.myNode;
    QNode* prev = atomic_exchange(&current, me);
    if (prev != null) {
        atomic_store(prev.next, me);
        while (atomic_load(prev.next)) {}
    }
}
```

## Example: MCS non-NUMA Pseudocode unlock()

```
public void unlock() {
    QNode* me = this.myNode;
    if (atomic_load(me.next) == null) {
        if (current.compare_exchange(me, null))
            return; // I am last, next should be null
        // wait for next thread to update .next
        while (atomic_load(me.next) == null) {}
    }
    atomic_store(me.next, null);
}
}
```