

# x86

1. 

“”

1. “XCHG” “XADD”

2. LOCK CMPXCHG

3. A #LOCK

A

A

A
2. fence
1. sfence: sfence sfence
2. lfence lfence lfence
3. mfence mfence mfence
3. C++11
1. Acquire-Release Synchronizes-With
2. Release-Consume carry-a-dependency

```
enum memory_order {  
    memory_order_relaxed, // Relaxed  
    memory_order_consume, // Release-Consume  
    memory_order_acquire, // Acquire-Release  
  
    memory_order_release, // Acquire-Release  
  
    memory_order_acq_rel, // Acquire-Release memory_order_acquire memory_order_release  
    memory_order_seq_cst //  
};
```