

How to Debug

- Use tools such as Tsan
 - Make sure you test your production code
 - Changes such as durations can cause side effects like sleeping
 - Logging etc. can cause synchronisation events which will change your program structure

• **Understand the system as a whole and its parts**

• Use `LD_PRELOAD` to catch all creations and locking

Is there any way to do this statically?



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- Use tools such as Tsan
 - Make sure you test your production code
 - Changes such as durations can cause side effects like sleeping
 - Logging etc. can cause synchronisation events which will change your program structure
- Use `strace` to catch system calls on particular threads
- Use `LD_PRELOAD` to catch allocations and locking

Is there any way to do this statically?

How to Debug

- Example fifo:

```
bool push (T && arg) {  
    ...  
    slots[pos] = std::move (arg);  
    ...  
    return true;  
}
```

Is push this lock and wait free?

Only if this is lock/wait-free movable

- We need: `static_assert (std::is_realtime_move_assignable<T>::value);`

Is this possible?