Operating System: Project 1 Document

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1 Task 1:

The test code is in KThread.selfTest(). There are two threads. Thread 2 call `Thread1.join()` at begin.

2 Task 2:

Since Task 6 will use Condition variable, I don't make a selfTest for this task.

3 Task 3:

The test code is in Alarm.selfTest(). One thread waits 1000 clock ticks and another waits 2000 clock ticks. To see which one wake up first.

4 Task 4:

The test code is in Communication.selfTest(). It simply generate two random numbers, and speak them, and two other threads will listen them with some order, which I want to test both speak will wait for listen, and listen will wait for speak.

5 Task 5:

The test code is in KThread.selfTestScheduler(). There are three threads, thread i with priority i. Thread 1 and thread 3 share a lock and thread 1 acquires first. So, the correct finishing order is thread 1, thread 3 and thread 2.

6 Task 6:

The test code is in Boat.selfTest(). The test cases is just some cases of the problem, where the biggest one is 10 adults and 10 children. The purpose is to print the procedure of the problem, and I will check it by myself.

7   Github repo

https://github.com/YMDragon/OperatingSystem