Missed Signals

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A missed signal happens when a signal is sent by a thread before the other thread starts waiting on a condition. This is exemplified by the following code snippet. Missed signals are caused by using the wrong concurrency constructs. In the example below, a condition variable is used to coordinate between the **signaller** and the **waiter** thread. The condition is signaled at a time when no thread is waiting on it causing a missed signal.

In later sections, you'll learn that the way we are using the condition variable's `await` method is incorrect. The idiomatic way of using `await` is in a while loop with an associated boolean condition. For now, observe the possibility of losing signals between threads.

```
import java.util.concurrent.lo
import java.util.concurrent.lo

class Demonstration {

    public static void main(St
        MissedSignalExample.ex
    }
}

class MissedSignalExample {

    public static void example

        final ReentrantLock lo
        final Condition condit

        Thread signaller = new

            public void run()
                lock.lock();
                condition.sign
                System.out.pri
                lock.unlock();
            }
        });

        Thread waiter = new Thr

            public void run()
```

Missed Signal Example

The above code when ran, will never print the statement `Program Exiting` and execution would time out. Apart from refactoring the code to match the idiomatic usage of condition variables in a while loop, the other possible fix is to use a **semaphore** for signalling between the two threads as shown below

```
import java.util.concurrent.Se

class Demonstration {

    public static void main(St
        FixedMissedSignalExampl
    }
}

class FixedMissedSignalExample

    public static void example

        final Semaphore semapho

        Thread signaller = new

            public void run()
                semaphore.rele
                System.out.pri
            }
        });

        Thread waiter = new Thr

            public void run()
                try {
                    semaphore.
                    System.out
                } catch (Inter
                    // handle
```

Fixed Missed Signal