

The Purpose of a Lock

The purpose of a lock is to control access to a shared resource by multiple threads.

Limitations of the Monitor Lock

The monitor lock is pretty easy to use, but it does have limitations.

1. There's no way to test if the intrinsic lock has already been acquired.
2. There's no way to interrupt a blocked thread.
3. There's not an easy way to debug, or examine the intrinsic lock.
4. The intrinsic lock is an exclusive lock.

java.util.concurrent.locks package

JDK5 gave us the java.util.concurrent package.

This provided developers with some additional solutions, to prevent problems in a multi-threaded environment.

The Lock Interface, and some of the provided implementations, can give us a bit more control, and flexibility over locking, and when and how to block threads.