Class Mutex < Object

A mutex is a semaphore object that can be used to synchronize access to resources shared across threads. We discuss mutexes (and other synchronization mechanisms) starting on page 191. Because the code examples tend to be long, I haven't duplicated them in this library description.

Instance methods

lock $mutex.lock \rightarrow mutex$

Takes a lock on *mutex*. Suspends if *mutex* is already locked by another thread and raises a ThreadError if the mutex is already locked by the calling thread.

locked? $mutex.locked? \rightarrow true \text{ or false}$

Returns the current locked state of *mutex*.

sleep $mutex.sleep(time \mid nil) \rightarrow seconds_slept$

Releases the current thread's lock on *mutex*, sleeps for *time* seconds (or forever if nil is passed), and then regains the lock. Returns the number of seconds actually slept.

synchronize $mutex.synchronize \{ block \} \rightarrow obj$

Locks *mutex*, executes the block, and then unlocks *mutex*. Returns the value returned by the block.

try_lock $mutex.try_lock \rightarrow true \text{ or false}$

If *mutex* is not currently locked, locks it and returns true. Otherwise, returns false. (That is, try lock is like lock, but it will never wait for a mutex to become available.)

unlock $mutex.unlock \rightarrow mutex$

Unlock *mutex*, which must be locked by the current thread.