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Message Board

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Author **Topic: Can a process wait or try to acquire 2nd lock when it already has a lock?**

adhanas Thu Feb 6 14:35

Can my implementation just return an error when a process try to acquire another lock when it already has one?

```
void
procA (void)
{
if (ERROR != lock(lock1)) /* assume this lock is granted */
/* blah blah */
if (ERROR != lock(lock2)) /* this might be granted or the process
may be put on wait queue */
/* more blah */
releaseall(2, lock1, lock2);
return;
}
```

i.e., in the above example, can I return an error on calling lock(lock2)? Is this acceptable?

If not, this situation might lead to deadlock. Please correct me if I'm wrong.

hcnguye3 Thu Feb 6 16:17

Process can acquire another lock when it already has one. You should NOT return error just because process has already acquired one lock
Deadlock can still happen, depending on how you use the locks.

spachary Thu Feb 13 13:59

Can it have the same lock twice??
As in lock2 can it be acquired twice?

hcnguye3 Thu Feb 13 14:43

If you meant the process tries to call lock(lock2) while it has already acquired it, lock(lock2) only needs to return OK

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