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* Test & Set Lock (TSL)

- A hardware solution to the synchronization problem.
- There is a shared lock variable which can take either of the two values 0 or 1. (0 means unlocked, 1 means 'Locked')

- Before entering into the critical section, a process inquires about the lock.
- If it is locked, it keeps on waiting till it becomes free.
- If it is not locked, it takes the lock & executes the critical section.

P.T.O

```
boolean TestAndSet(boolean *target){
boolean rv = *target;
*target = TRUE;
return rv;
}
```

The definition of the TestAndSet() instruction

P_1, P_2
Initial value of lock = 0

```
do{
while(TestAndSet(&lock));
// do nothing
// critical section
lock = FALSE;
// remainder Section
} while(TRUE);
```

[In while loop 0 → False
1 → True]

TSL Satisfies mutual Exclusion.

~~Does not~~