Fault "MOTOR" - Timing Diagram

This timing diagram depicts the timing of events in the system for the situation where an elevator is stuck between floors. In the standard configuration of this system, the elevator is expected to take 5 seconds to traverse between floors. In this scenario, the elevator motor does not operate the full 5 seconds, and returns to the "Wait for requests" (Stopped) state. The floor arrival sensor never triggers a message to the scheduler. The scheduler knows that a floor arrival sensor is expected 5 seconds after sending the elevator move event, and therefore sets the elevator as 'Out of Service'

FloorSubsystem

Send Scheduler elevator request

Wait to send request

Scheduler

Set Elevator "Out of Service"

Send elevator "Move" request

Send elevator "Close Door" request

Wait for request

ElevatorSubsystem

Send floor "Arrival Notice"

Moving

Send Scheduler "Door Closed"

Close door

Wait for request

0   1   2   3   4   5   6   7   8   9   10

Time (seconds)