

Fault "DOOR" - Timing Diagram

This timing diagram depicts the timing of events in the system for the situation where an elevator's door close is interrupted and does not successfully complete (although this could be the same for a door open event). In the standard configuration of this system, the elevator is expected to take 2 seconds to successfully open or close the door. In this scenario the door close sequence is interrupted. The scheduler knows that a door close/open event should only take 2 seconds and it should have received an event confirmation from the elevator. The scheduler resends the same event, until a confirmation is returned from the elevator. This diagram shows two unsuccessful attempts, until a third close door sequence is completed successfully.

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

Moving

Send Scheduler "Door Closed"

Close door

Wait for request

0

1

2

3

4

5

6

7

8

9

10

Time (seconds)