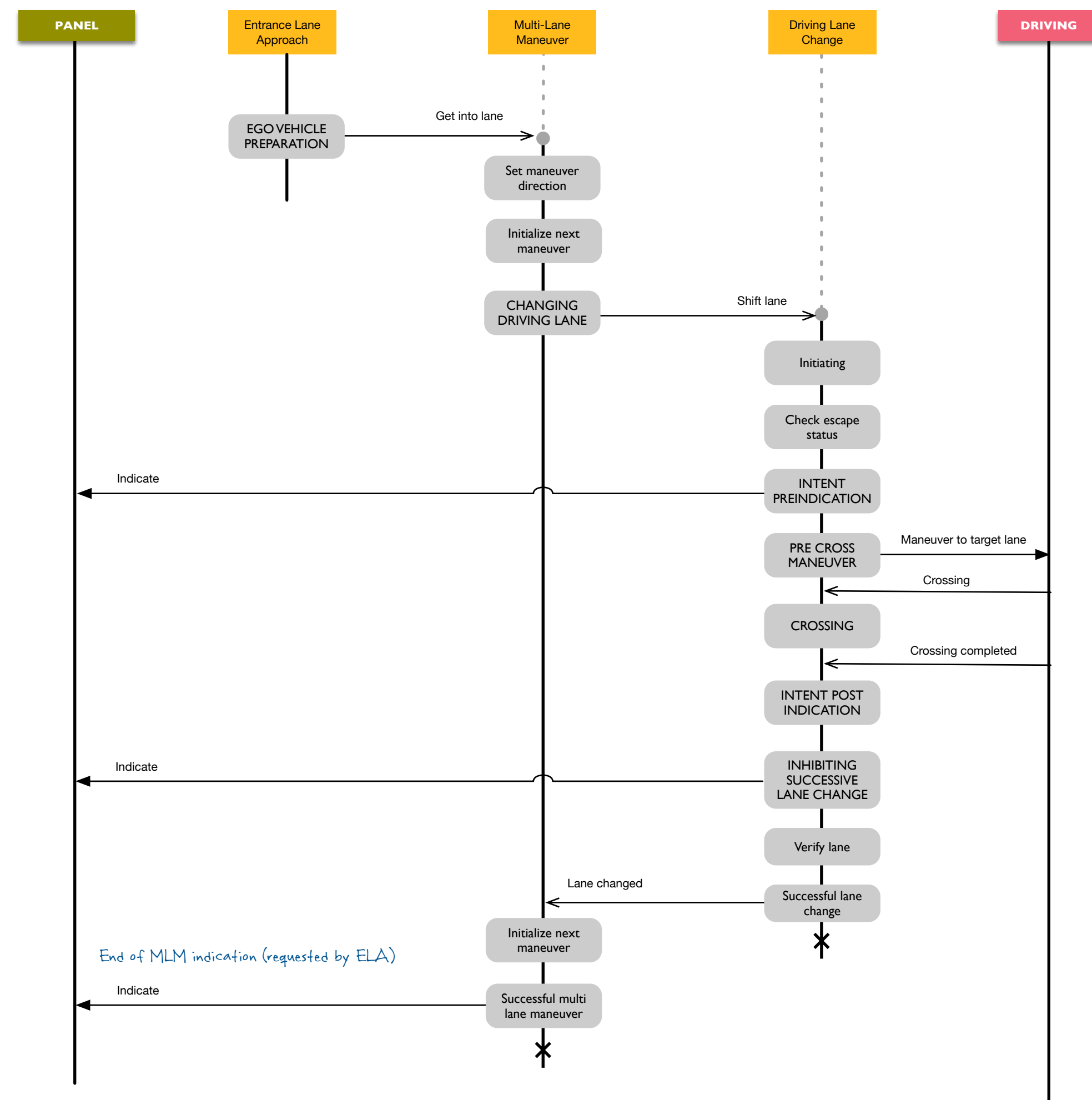
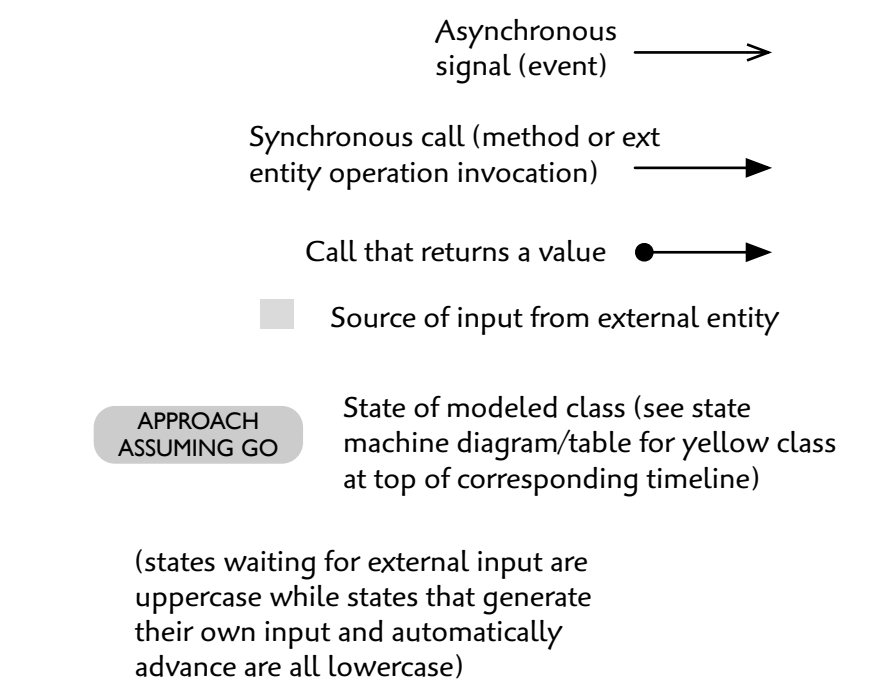


Scenario 1: Single Inside Lane Change success



Sequence Diagram Key

This sequence diagram illustrates the expected state changes and interactions of classes modeled in the Ego Vehicle subsystem of the Vehicle Guidance domain with proposed external entities for the given scenario

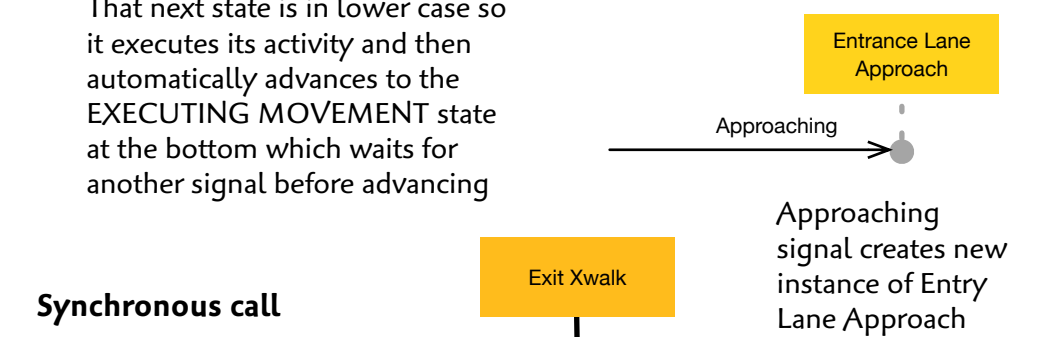


The diagram illustrates the asynchronous signal transition. A horizontal line represents the signal path. A vertical arrow points from the line to a box labeled "APPROACH ASSUMING GO". Below this box, another vertical arrow points to a box labeled "Verifying EV in this Entrance Lane". Below that, a third vertical arrow points to a box labeled "EXECUTING MOVEMENT". A horizontal arrow labeled "Commit go" points from the left towards the "APPROACH ASSUMING GO" box.

Asynchronous signal

Commit go signal triggers transition from APPROACH

Creation interaction



Synchronous call

Activate method of Exit Xwalk class is invoked. There is no state machine on this class and hence there are no states on the timeline

Determinant Value

For classes without state machines, we may track certain variables, often boolean, which are examined by collaborating instances.

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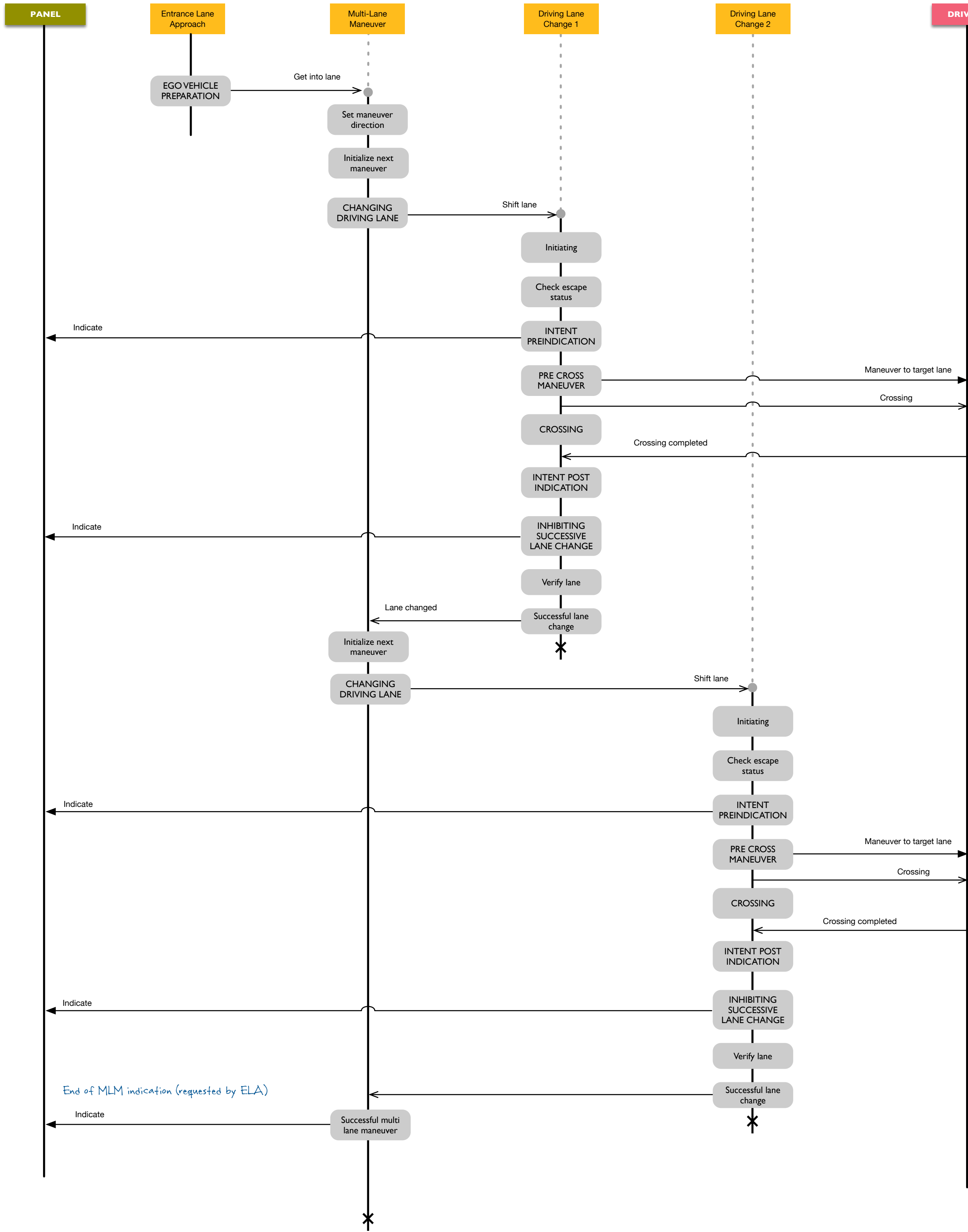


January 11, 2021

Leon Starr / tri.guidance.ego.td.19 / v0.8.0

Scenario 2: Double Lane Change success

To see the overall behavior pattern we refer to DLC 1 and 2 abstractly. For simulation purposes, the four instance lifelines will be distinguished by their identifier attribute values for a given street/lane-division scenario.



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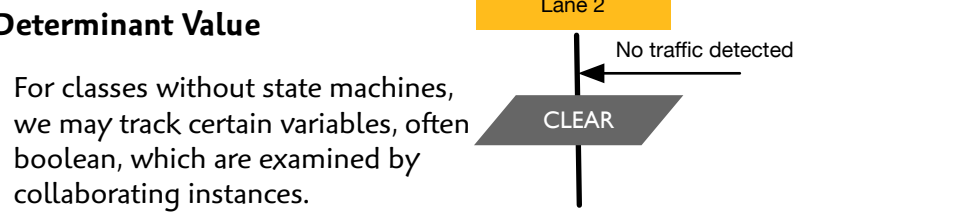
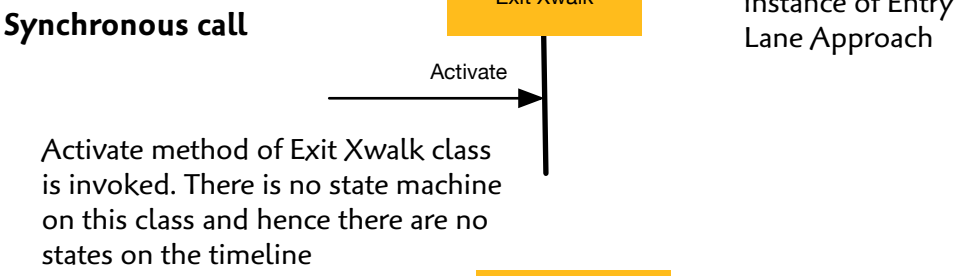
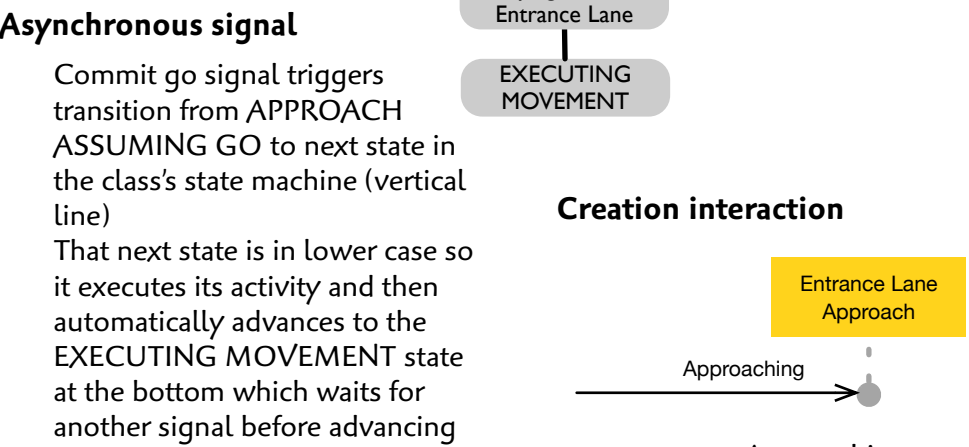
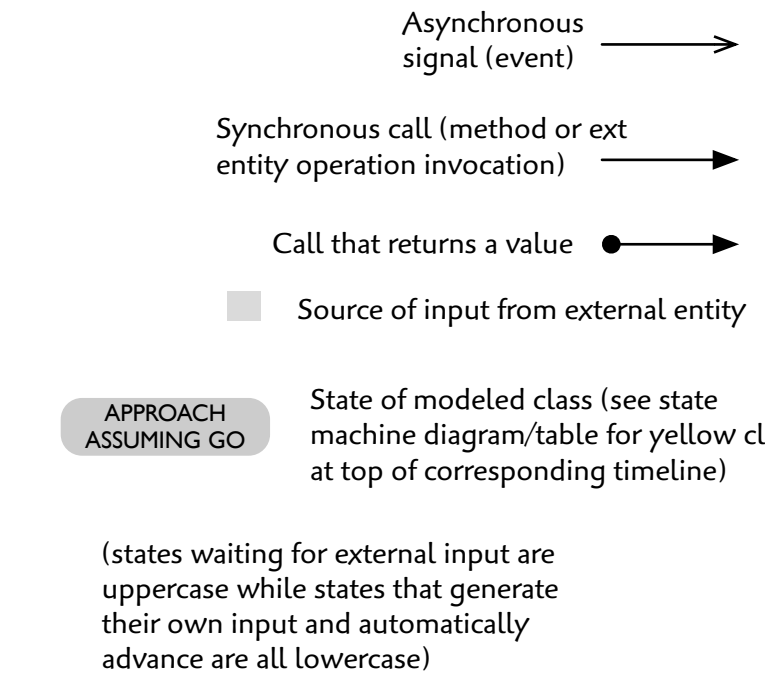
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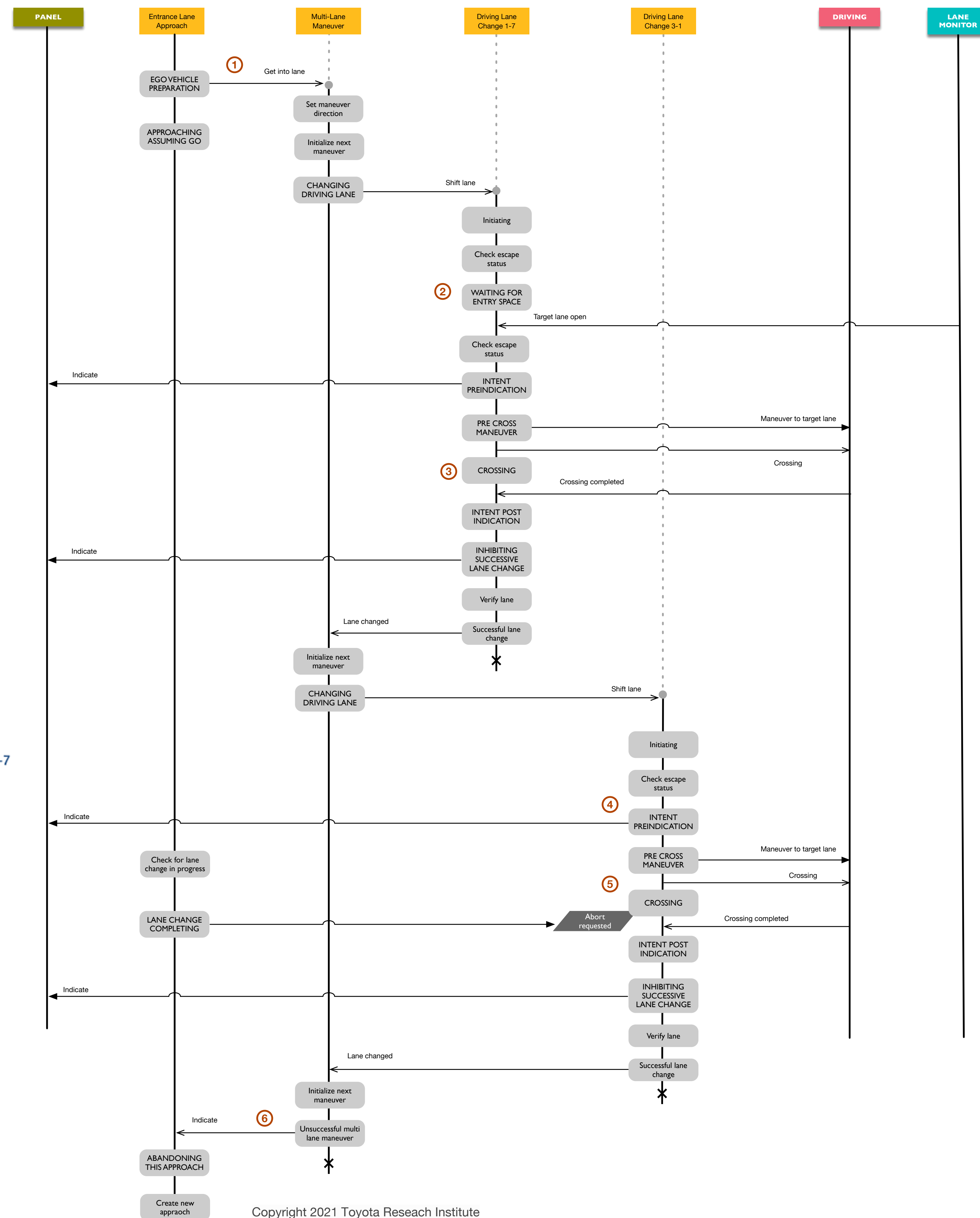
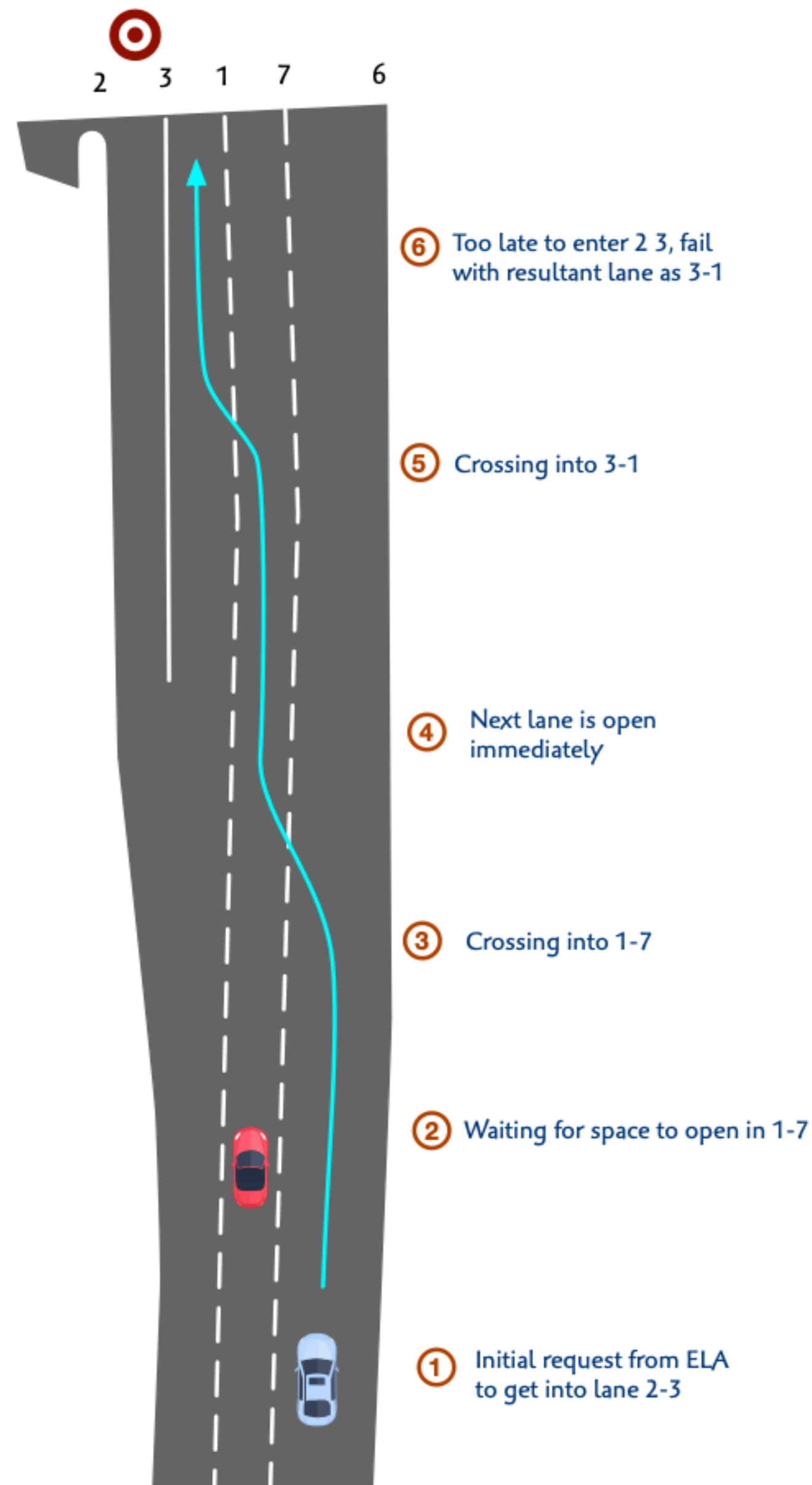


Sequence Diagram Key

This sequence diagram illustrates the expected state changes and interactions of classes modeled in the Ego Vehicle subsystem of the Vehicle Guidance domain with proposed external entities for the given scenario

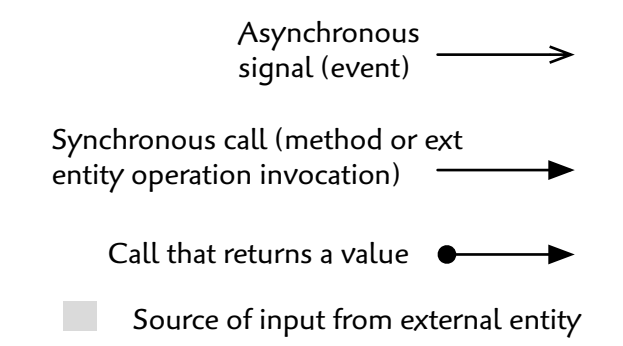


Scenario 3: lane change failure



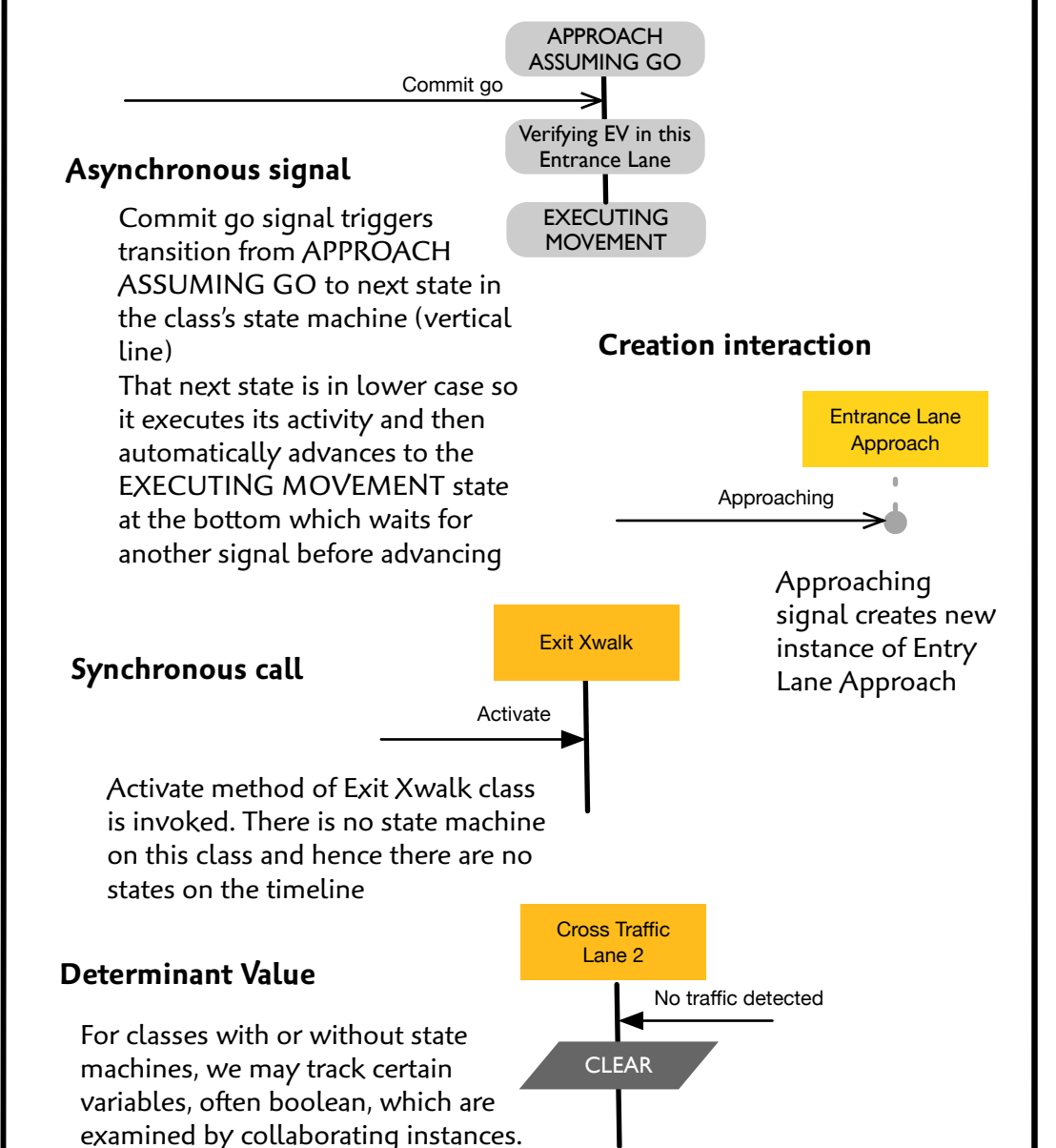
Sequence Diagram Key

This sequence diagram illustrates the expected state changes and interactions of classes modeled in the Ego Vehicle subsystem of the Vehicle Guidance domain with proposed external entities for the given scenario



APPROACH ASSUMING GO State of modeled class (see state machine diagram/table for yellow class at top of corresponding timeline)

(states waiting for external input are uppercase while states that generate their own input and automatically advance are all lowercase)



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