

# OPENSENARIO DEFINITION USE CASES

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GENERAL MOTORS

**Validation scenarios** – Short and with single / few maneuvers, ~deterministic

- Makes sense to define maneuvers with a “trigger – action” type of formulation.
- Should support a large library of triggers and actions. For example, trigger for a general lane change (not with respect to any particular lane or track position) is now missing.
- Allow combination of triggers with “and” and “or”.
- All initializations, triggers and maneuvers should support definitions in frenet (road) frame. For example for a “keep distance” maneuver where an adversary maintains a fixed distance – this distance should be longitudinal or lateral.
- $s$ , and  $t$  coordinates on road should be separable – define elements w.r.t to noe of them no necessarily both.

**Test scenarios** – Pulk based, ~stochastic

- Density based initialization also for triggered maneuvers, i.e. pulk should allow for trigger-action definitions as well.
- Pedestrian / bicycle pulk
- Pedestrians AI (?)
  - Define road crossings, jay walkers

## **Recorded scenarios**

- Replay recorded trajectories
- Some way to define switch to autonomous behavior

## **Should map features be included in the scenario standard?**

- Bank of road features – straight highway, merge, rural road, urban roundabout, urban intersection etc...
- Road features (?) - curvature