System Specification

Cooperative Research Platform

1. Goal of the document

This document summarizes the details of how the Cooperative Research Platform (CRP) is built up. It consists of the multiple layers:

* System Functionality,
* Architecture,
* Scenario Coverage and demonstration basis

1. Function Specification

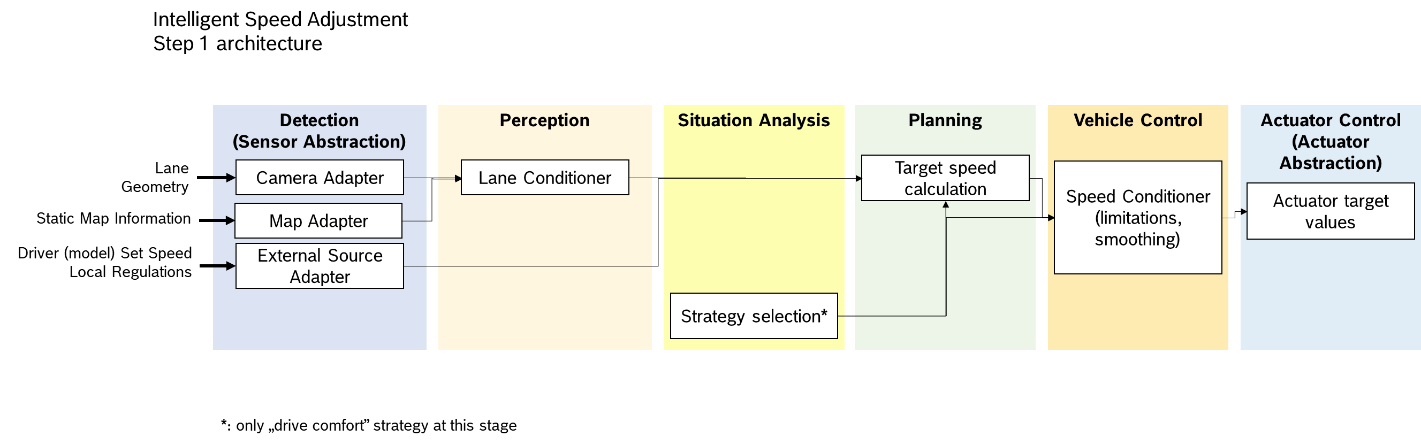
This Section describes the high-level specifications of the covered functionality.

2.1. Intelligent Speed Adjustment

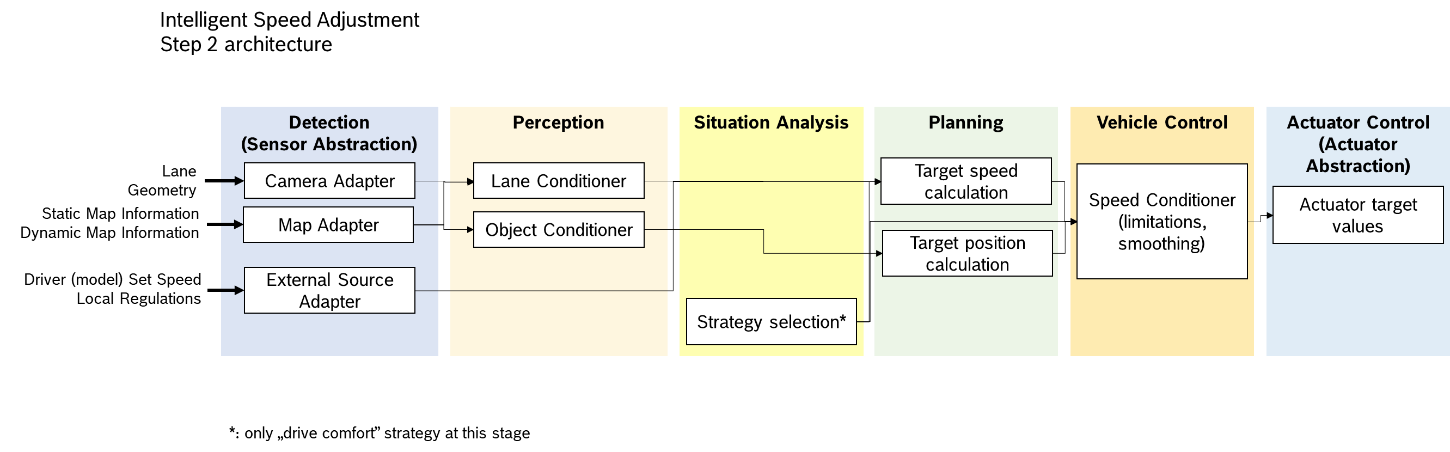
* Step 1 functionality: longitudinal speed control adjusted to static information, such as curve and local regulations (speed limit).
* Step 2 functionality: step 1 + speed adjustment on dynamic information, such as moving objects (e.g., followed vehicle).

For both: speed range is 0 <= vx <= 150 kph, which therefore includes automatic start/stop functionality.

Step 1 architecture:



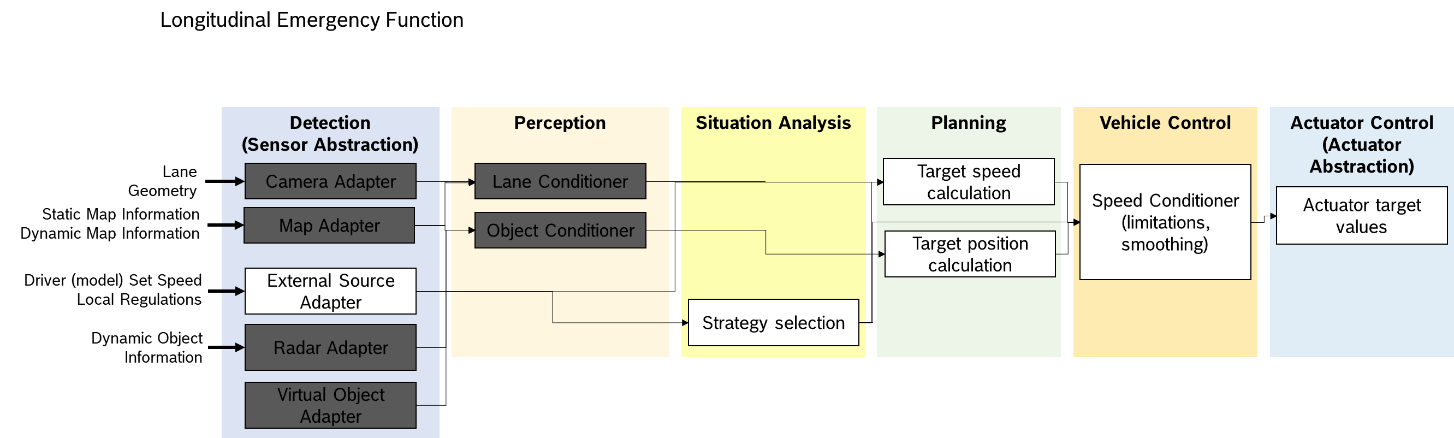
Step 2 architecture:



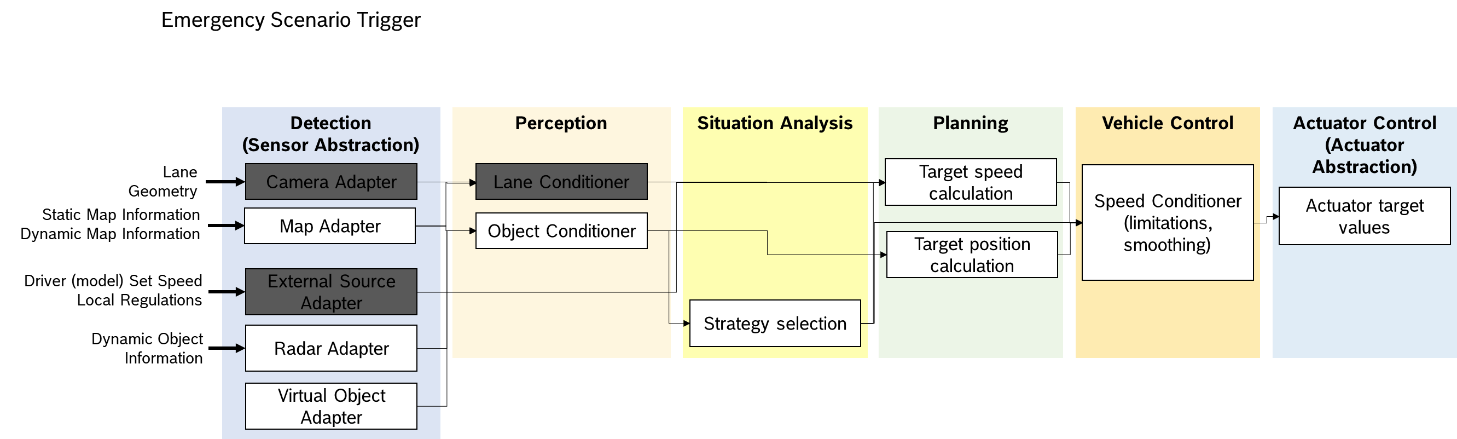
Interfaces:

|  |  |  |  |
| --- | --- | --- | --- |
| Layer | Name | Type | Content |
| Detection | det\_road\_geometry |  |  |
|  |  |  |  |
|  |  |  |  |

2.2. Longitudinal emergency function



2.3. Emergency Scenario Trigger



Based on distributed sensor data calculate the trigger of the emergency scenario.