Chair for Computation in Engineering
Deparment of Civil, Geo and Environmental Engineering
Technical University of Munich

Automated Driving Systems - Co-Simulating Carla with Simulink®

Setting:

Carla is an open-source automated driving stack with grown popularity among users. The project is about demonstrating interconnectivity between MATLAB®, Simulink® and their toolboxes with a state-of-the-art open source automated driving environment.

Your Goal:

Key objective of this project is to connect Carla to MATLAB® and Simulink® through Vehicle Dynamics Blockset™ and its Unreal Engine 4 integration for co-simulation. Additionally, an automated-driving co-simulation example needs to be developed and showcased.

Tasks:

- Research on tools and co-simulation interface
- Development of a proof concept software-demo based on a self-chosen, urban automated driving scenario.
- Documentation of advantages and limitations of involved tools.
- Publish findings on MATLAB Central FileExchange.

Dr.-Ing. Christoph Hahn (MathWorks) | Steve Schaefer (MathWorks)

Project Characteristics
Modeling: ★★★★★
Mathematics: ★★☆☆☆
Programming: ★★★★☆
Science: ★★★☆☆