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OpenDRIVE at dSPACE
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Automotive Simulation Models (ASM) for ADAS

ASM

- **Vehicle Simulation**
  - Engine, Drivetrain, Vehicle Dynamics

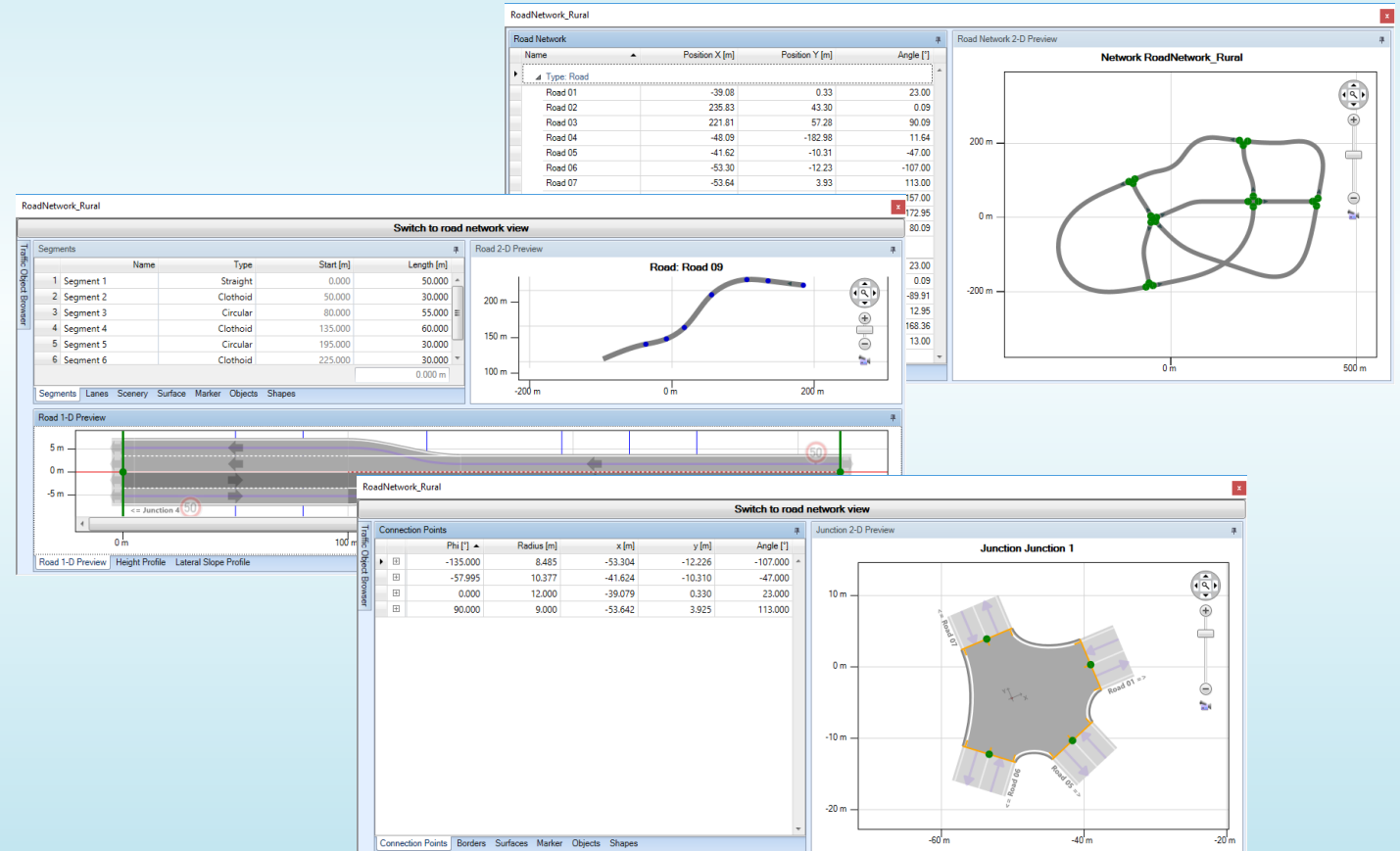- **Environment**
  - Driver, Road network

- **Scenario Definition**
  - Ego vehicle behavior
  - Additional traffic objects behavior

- **Traffic Sensors**
  - Object detection
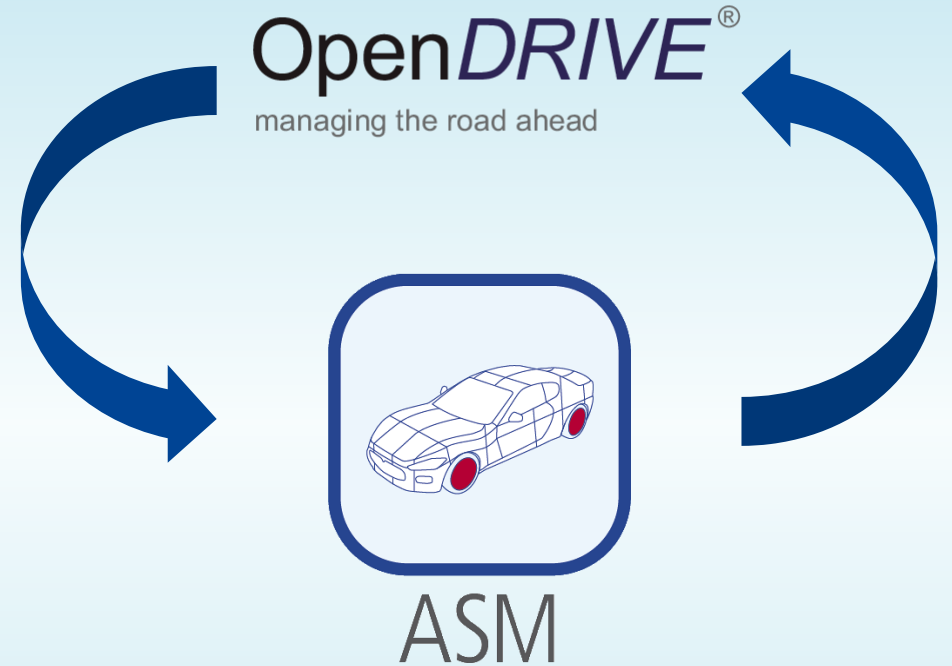
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OpenDRIVE – Application

- **History**
  - First support of OpenDRIVE 1.3 import in 2015, switched to 1.4 in 2016.
  - Export of OpenDRIVE 1.4 files also in 2016.
  - In contact with OpenDRIVE suppliers to optimize support.

- **Customer requests**
  - Import of third party and self-created OpenDRIVE files.
  - Export of road networks to OpenDRIVE.
  - Technical discussions on OpenDRIVE content.
  - Styleguide on how to create proper OpenDRIVE files.

Open*DRIVE*®
managing the road ahead

ASM

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Requirements for the OpenDRIVE Standard

dSPACE-Confidential

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Viewer / Reference Implementation

- Preview of network in provided XODR file.
- Available for Linux and Windows.
- Basic schema validation.
- Basic content verification.

Styleguide / Best Practice

- Include Styleguide (Download) in documentation.
- Support topics in Styleguide with example XODR files.
- Add new topics to the Styleguide (e.g. road marks).
- Add more complex real world demo files.

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Alternative Junction Definition

- Option to define a junction by its connection points.
- No more inconsistencies between junction roads.
- Distinct junction height definition.

Road Environment

- (Reference to an external) 3D represenation of the environment.
- Support for sensor relevant parameters (e.g. RCS)

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Thank you for listening!

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