



CloudCarSim

ADAS/AD simulator

Accelerate. Automate. Innovate.



The simulation of Advanced Driver Assistance Systems (ADAS) is a complex and crucial undertaking. While there are ADAS simulators available in the market, they tend to be costly and lack easy customization. Furthermore, the utilization of Generative AI technology to enhance the simulation process is not widely accessible in the market.

In response to these market demands, Wipro has introduced the Generative AI-based accelerator CloudCarSim solution for ADAS validation. This innovative solution aims to facilitate continuous testing without the need for physical prototypes, addressing the challenges associated with traditional ADAS simulation tools.

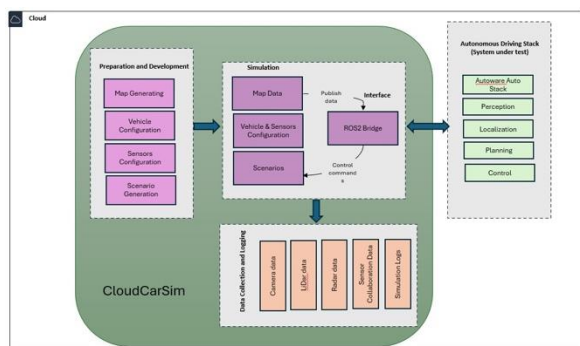
Wipro's CloudCarSim

Wipro's CloudCarSim is an ADAS/AD simulator specifically crafted for developers to conduct virtual testing and assessment of systems across a diverse array of conditions. By simulating various driving scenarios, including on-road and off-road situations, as well as diverse weather conditions and traffic patterns, CloudCarSim harnesses the power of Generative AI to offer comprehensive testing environments. Furthermore, CloudCarSim is designed to seamlessly integrate with any AV stack, enabling thorough testing of ADAS/AV functionality.

Solution overview

CloudCarSim ADAS simulator supports customized maps and various open map standards, including OpenStreetMap and OpenDrive. It also offers configuration and visualization of multiple vehicle sensors, ensuring a robust and versatile simulation experience. It allows map generation, scenarios generation, Scenario–Stochastic, Scenario–GenAI, Simulation testing, sensor data collection and report generation.

CloudCarSim Block Diagram



CloudCarSim UI



Business Benefits



Enhanced Product Development

- Accelerate testing and refinement of ADAS features
- Reduce costs associated with real-world testing
- Identify and address potential safety issues proactively



Improved Product Quality

- Ensure ADAS systems meet high standards
- Collect data to optimize performance
- Mitigate the risk of recalls and legal liabilities



Competitive Advantage

- Accelerate the function development and
- reduced time to market. Bring innovative features to market faster.
- Gain a competitive edge in the industry



Cost-Effective Solutions

- Optimize resource allocation for efficient testing.
- Streamline development processes
- Prevent costly field failures and recalls

Salient Features



Scenario Builder:

Create and customize driving scenarios to test ADAS systems



Sensor Configuration:

Configure and visualize various sensors (cameras, LiDAR, radar) on the vehicle.



Vehicle Dynamics:

Simulate realistic vehicle behaviour in different conditions.



Data Collection:

Collect sensor data for analysis.



AI Integration:

Integrate AI algorithms for ADAS/autonomous features.



Cloud-Based Simulation:

Enable remote access and scalability. Currently it is supporting AWS.

Contact automotive.solutions@wipro.com today to learn about Wipro's CloudCarSim to accelerate ADAS validation.



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to sustainability and good corporate citizenship, we have over 175,000 dedicated employees serving clients across six continents. Together, we discover ideas and connect the dots to build a better and a bold new future.

For more information, please write to us at automotive.solutions@wipro.com



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