



IBM Engineering

Deliver advanced automotive features with AUTOSAR – no experts required



Automotive development is complex, especially as vehicles move to electric motors and batteries, and advanced sensors and software enable more autonomous operation. It's a challenging shift that requires a development pivot from a mechanical to a software mindset.

That's why standards like Automotive Open System Architecture (AUTOSAR) are so critical. With a common platform, OEMs and their suppliers can better work toward scalability, transferability, collaboration, sustainability and maintainability across the engineering lifecycle.

The AUTOSAR extension from IBM

IBM Engineering Systems Design Rhapsody® – AUTOSAR Extension helps your teams accelerate the development and delivery of advanced automotive features in both Classic and Adaptive AUTOSAR platforms without being experts in the standard.

How it works

IBM's solution leverages model-based systems engineering (MBSE) and model-based software engineering to provide a graphical, yet formal, design environment.

This new capability generates production code and the respective AUTOSAR XML (ARXML) files that are compliant with Motor Industry Software Reliability Association (MISRA), both of which are required to comply with AUTOSAR and its toolchains.

The automotive engineers can focus on the application domain – with early analysis, design and development, simulation and early testing – while automating the mundane aspects of AUTOSAR.

Environment

IBM offers an AUTOSAR Extension for both the Designer and Developer editions of the IBM Engineering Systems Design Rhapsody. This extension will enable full automation from systems modeling language (SysML) and unified modeling language (UML) models to AUTOSAR deployable code.

Rhapsody is a key component of the IBM Engineering Lifecycle Management solution. It's a proven solution for modeling and design activities that helps you deliver higher quality systems and software faster.



Capabilities of IBM AUTOSAR Extension:



Support for a typical OEM workflow. Capability to convert the relevant parts of SysML and UML models into AUTOSAR by leveraging a customizable, rules-based extraction of the architecture.



Support for a typical supplier workflow. Generates software components for Classic platform and applications for Adaptive platform by leveraging UML diagrams.



Flexibility to delay or retarget implementation decisions to either Classic or Adaptive platform.



Support for a development process that enables a single design to be mapped into multiple ECUs, with some based on the Classic platform and others based on the Adaptive platform.

Visit our website

Discover a proven solution for modeling and design activities that helps you deliver higher quality systems and software faster.



Let's talk!

Schedule time to talk with an IBM expert.

