

Code Generation for AUTOSAR Adaptive Applications

OEM: MathWorks • Duration: 2 Days (16 hrs) • Code: MW-CODE-GENERATION-FOR-AUTOSAR-ADAPTIVE-

COURSE MODULES & TOPICS

Day 1 of 2

AUTOSAR Adaptive Platform Overview

- AUTOSAR overview
- AUTOSAR Adaptive platform structure
- Service-oriented architecture
- Using Simulink for AUTOSAR Adaptive application design

Understanding AUTOSAR Adaptive C++ Code and Artifacts

- Generating generic C and C++ code
- Configuring models for AUTOSAR Adaptive code generation
- Generating AUTOSAR Adaptive C++ code and ARXML files
- Simulating AUTOSAR Adaptive models

Modeling AUTOSAR Adaptive Events

- Configuring AUTOSAR Adaptive ports and interfaces
- Using Simulink buses in AUTOSAR Adaptive applications

Modeling AUTOSAR Adaptive Multirate Applications

- AUTOSAR Adaptive modeling domains
- Modeling event-driven AUTOSAR Adaptive applications

Day 2 of 2

Modeling AUTOSAR Adaptive Methods

- Configuring service interfaces between AUTOSAR Adaptive applications
- Modeling blocking method calls
- Modeling nonblocking method calls

Importing AUTOSAR Adaptive Applications

- AUTOSAR Adaptive XML (ARXML) description
- Importing AUTOSAR Adaptive applications

- Array and enumeration data types
- Adding functionality to generated Simulink models
- Simulating with a harness model
- AUTOSAR Adaptive code generation
- Structure and fixed-point data types
- Managing imported data types in Simulink
- Importing modified ARXML files

Modeling AUTOSAR Adaptive Software Architecture

- Creating AUTOSAR Adaptive software architectures and compositions
- Generating AUTOSAR Adaptive applications
- Exporting AUTOSAR Adaptive compositions and applications
- Simulating AUTOSAR Adaptive software architecture models

Modeling AUTOSAR Adaptive Runtime Services

- Modeling key-value persistency
- Outputting to standard logging utility