Agenda

- Workflow overview
- Data flow analysis and timing verification
- Model creation and simulation
- Optimization of system configuration
- Automated timing verification
TA Tool Suite™ - Project Lifecycle

Use Cases

SOD
Start of Development

Concept Phase

Development Phase

SW Release 1

SW Release 2

SW Release n-1

SW Release n

SOP
Start of production

Maintenance Phase

Concept Phase

High-Level System Model Design

TA Designer

SW Architecture Requirements & Constraints

Detailed System Model Design

TA Designer

System Model Simulation

TA Simulator

System Model Optimization

TA Optimizer

Target Trace Verification

TA Inspector

System Model Reconstruction

TA Inspector

Reporting

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Demonstration – One Release Cycle

Concept Phase

Development Phase

Maintenance Phase

SW Release 1
SW Release 2
SW Release n-1
SW Release n

SOP
Start of production

Initial Verification
Modelling
Optimization
AUTOSAR Update
Final Verification
Initial Verification

Initial Verification

- Modelling
  - Executable
  - Tracing
  - BTF Trace

- Optimization
  - BTF Trace
  - Requirements
  - TA Inspector
  - Metrics
  - Req Violations

- AUTOSAR Update
  - Metrics
  - Req Violations

- Final Verification
  - Design Report

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Modelling

Initial Verification → Modelling → Optimization → AUTOSAR Update → Final Verification

Input

Module

Output

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AUTOSAR Update

Initial Verification | Modelling | Optimization | AUTOSAR Update | Final Verification

Input
- Opt Model
- AUTOSAR® AMALTHEA

Module
- Timing-Architects Tool Suite

Output
- ECUC Updated
- Executable

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Final Validation

Initial Verification

Modelling

Optimization

AUTOSAR Update

Final Verification

Input

Executable

Modelling

TA Inspector

Output

Junit XML

Requirements

Metrics

Req Violations

Metrics

Req Violations

BTF Trace

Tracing

BTF Trace

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THANK YOU FOR YOUR ATTENTION!

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