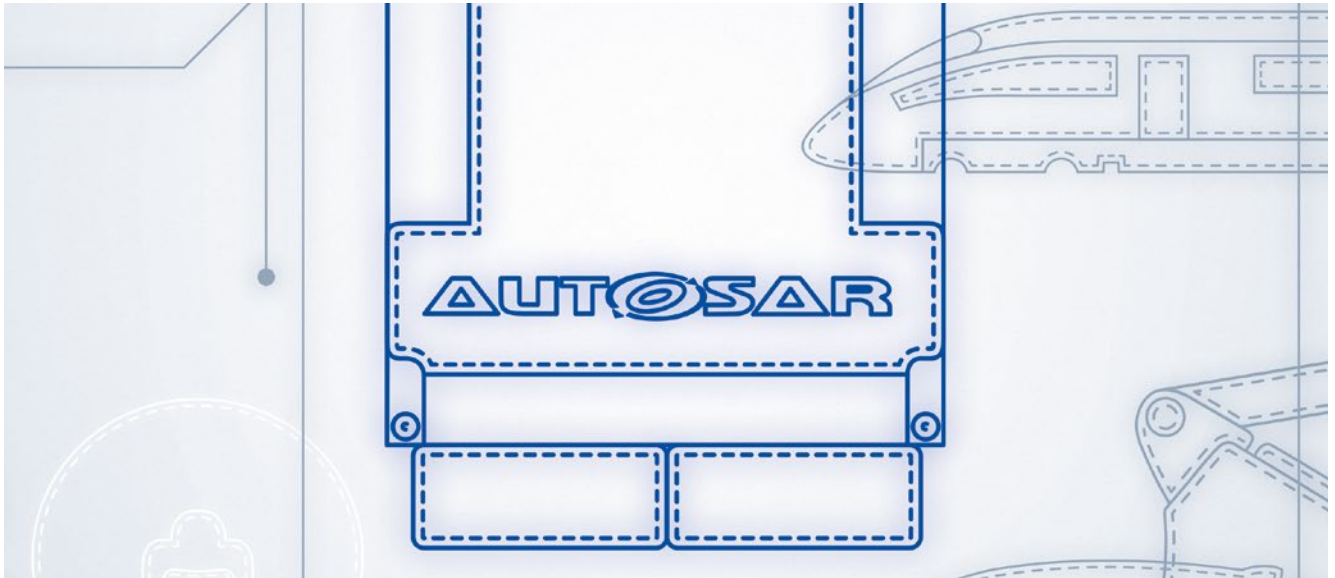


RTA-BSW Starter Kit

Complete AUTOSAR reference application



At a glance

- Complete, working AUTOSAR reference application
 - Editable basic software (BSW) configuration files
 - Full source code for all application software (ASW) modules
 - Full source code for all BSW modules (excluding operating system)
 - Enables generation of A2L files to support calibration
 - Included training
-

Overview

The ETAS RTA-BSW Starter Kit is a ready-to-use, complete AUTOSAR reference application intended for users who want

to have access to and want to experiment with an AUTOSAR application capable of running on a real or virtual target system. To enable users to generate the reference application, the RTA Starter Kit provides all of the necessary software tools and evaluation licenses, together with example application software and example configuration. It features a full AUTOSAR basic software stack, including runtime environment (RTE), operating system (OS), COM, MEM and DIAG stacks including a microcontroller abstraction layer (MCAL) for a specific microcontroller/compiler combination.

The RTA-BSW Starter Kit also provides the ability to generate A2L files from the configuration, if the example application is used with an XCP-based calibration tool (such as ETAS INCA).

The RTA Starter Kit has been designed to run on representative hardware or on a virtual environment (see overleaf for currently supported platforms).



Reference application

The reference application that is generated from the RTA Starter Kit demonstrates:

- CAN communication (including the UDS diagnostic protocol)
- Diagnostic event management
- Non-volatile memory management
- Mode management
- Watchdog management
- E2E (end-to-end communication protocol)
- Calibration via XCP using a generated A2L file

Included software

The RTA Starter Kit provides the following software with included licenses:

- RTA-RTE: RTE generator
- RTA-OS: real-time operating system including the target-specific part relevant to a specific compiler/microcontroller
- RTA-BASE: ECU and BSW mode management
- RTA-DIAG: diagnostic components
- RTA-SAFE: components for safety management
- RTA-MEM: non-volatile memory components
- RTA-COM: network independent communications components
- RTA-CAN: CAN-specific network components
- RTA-XCP: supports XCP protocol over CAN
- RTA-A2L: generator for A2L files
- MCAL: microcontroller abstraction layer
- ISOLAR-A: AUTOSAR authoring and basic software configuration tool

Also provided is a reference application, which consists of editable BSW configuration (EcuC value) files, related ASW source code and a pre-generated A2L file.

Included training

To maximize the use of the RTA-BSW Starter Kit, and to be ready for future steps with AUTOSAR, on-site training is included with the starter kit package.

Starter kit availability

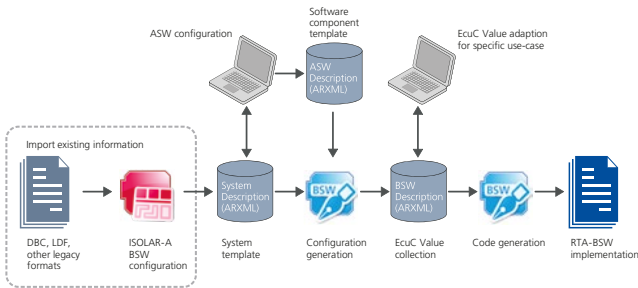
The starter kit is currently available for the following combinations of microcontroller, compiler and MCAL:

Vendor	Micro-controller	Compiler	MCAL
ETAS	ISOLAR-EVE (Virtual ECU)	GCC	EVE
Infineon	AURIX	High Tec	Infineon
Renesas	RH850	Green Hills	Renesas

For alternative microcontrollers/compiler, please contact your ETAS representative.

Configuration details

Package	Configuration scope
RTA-RTE	Sample application software with software components using RTA-BSW services
RTA-OS	Operating system configuration
RTA-BASE	Standard start-up/shut-down process
RTA-COM	COM stack configuration includes CAN signals, NM supported, CanTP supported
RTA-CAN	NVM blocks configured using internal flash
RTA-MEM	Sample UDS and DTC configuration
RTA-DIAG	Sample configuration for measurement and calibration
MCAL	MCAL integration and testing. Configuration



RTA-BSW workflow

ETAS-PGA/MKLESE/02_2018



For further information on RTA solutions, please refer to www.etas.com/rta-solutions.
If you require further information, don't hesitate to contact your local ETAS representative.