Announcement

January 2023

Release Event R22-11

AUTOSAR Release R22-11 published

On Thursday, 8th December, the current AUTOSAR Release R22-11 was successfully presented at the virtual Release Event on the Swapcard platform with around 750 registered participants from around the world.

This year's presentations were focused on the released documents in the R22-11, showing the continuous development of the AUTOSAR standard together with the outlook on AUTOSAR's strategic future and the 20th Anniversary.

The presentations began with a thorough introduction to the AUTOSAR organization, the standard, and its guiding principles, which state that through increased reuse and exchangeability of software modules between OEMs and suppliers, AUTOSAR ensures an advanced complexity management of integrated E/E architectures. This increased complexity leads to the Software Defined Vehicle topic which AUTOSAR aims to tackle in the coming years.

Summarized in numbers, the AUTOSAR Release R22-11 had 2029 incorporation tasks in all 3 AUTOSAR standards, 1440 change requests were discussed within the AUTOSAR community, 182 AUTOSAR Partners collaborated in 20 Working Groups, 13 new concepts were introduced to tackle the future goals on two standardized AUTOSAR Platforms, the Classic and the Adaptive Platforms. All this defines one holistic E/E System Architecture for the Future Intelligent Mobility. In detail, the Release R22-11 included the following concepts:

Classic Platform:
MACSec, CAN XL, V2X Support for China, Secure Global Time Sync, V2X in AUTOSAR, DDS Support on Classic Platform and Deterministic Communication with TSN

Adaptive Platform:
MACSec, CAN XL, Firewall, Service Oriented Vehicle Diagnostics and SOME/IP Harmonization

To reflect the latest updates of the AUTOSAR XML Schema, an update of the Adaptive Platform Demonstrator with its 334.000 lines of code is scheduled for April 2023.

The overview of Release R22-11 was followed by a deep dive on features within Communication, Timing Analysis and Connectivity with detailed presentations on the new concepts in the respective areas.

Furthermore, the AUTOSAR Opening Strategy was presented by highlighting key initiatives currently in development by management layers in AUTOSAR.

The first aspect of this are the AUTOSAR partnership types being extended by the Premium Partner Plus. This new partner type allows companies to get into the technical steering of AUTOSAR and thereby contribute their ideas in an extended fashion.

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Second, Derived Applications are in thorough discussion resulting in a Derived Applications catalogue. With this, AUTOSAR envisions to encourage the usage for applications outside the automotive industry. The full catalogue can be found here.

The next step is the Vehicle API with the aim of a compatible framework for in-vehicle network and existing IoT, resulting in the wide availability of the Vehicle Interface under applied OSS licenses. The open license model is currently in assessment and in the future shall allow and foster the collaboration of different parties within the Automotive Development Ecosystem.
With this, AUTOSAR wants to encourage companies from other industries to work on standardizing with AUTOSAR but also to use it.

AUTOSAR wants to thank the AUTOSAR community for the discussions, the quality and the focus contributed to this Release R22-11.

The AUTOSAR Release R22-11 documents can be found on the AUTOSAR website by using the document search.

The videos from the event can be found on the website.

About the AUTOSAR Adaptive Platform

AUTOSAR first released its Adaptive Platform on March 31st, 2017 as a standardized integration platform for microprocessor-based electronic control units (ECU). The AUTOSAR Adaptive Platform is based on POSIX operating systems and is the ECU standard for new automotive megatrends. It provides a unique holistic AUTOSAR safety and security approach for microcontroller-based ECUs and high-performance microprocessor-based ECUs throughout the whole EE-Architecture with a consistent software and methodology design. Additionally, AUTOSAR Adaptive Platform also introduces a holistic approach for updatability (over the air) throughout the whole EE-Architecture. By doing so, the new standard avoids the costly alternative for OEMs and their suppliers of repeatedly developing the critical and complicated functionality of such software platforms with proprietary and individual solutions.

About the AUTOSAR Classic Platform

The AUTOSAR Classic Platform is the well-established standardized software and methodology framework for deeply embedded electronic control units (microcontroller ECUs), which offers OEMs and suppliers a safe, secure, and stable foundation to build up their distributed software systems. By using a layered software architecture based on a methodology that configures the software stack as well as the complete communication for a given EE-Architecture, the AUTOSAR Classic Platform supports all kinds of interconnected microcontroller-based ECUs.

About AUTOSAR (AUTomotive Open System ARchitecture)

AUTOSAR (AUTomotive Open System ARchitecture) is a global partnership of leading companies in the automotive and software industry to develop and establish the standardized technical framework enabling scalable E/E system architectures for intelligent mobility. Since 2003, they have been working on the development and introduction of several open, standardized software platforms including the joining methodology for the automotive industry. By simplifying replacement

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and update for software and hardware, the AUTOSAR approach forms the foundation for reliably controlling the growing complexity of electronic and software systems in today's and future vehicles. As AUTOSAR is open to new features in the Automotive area it will continuously adapt the standards. In addition, AUTOSAR improves cost efficiency and quality by enabling its partners to cooperate in a competitive way but on the same solution. The "Core Partners" of AUTOSAR are the BMW Group, Bosch, Continental, Daimler, Ford, General Motors, Stellantis, Toyota and the Volkswagen Group. The AUTOSAR partnership of over 350 partners play an important role in the success of the partnership and can use the standards free of charge

Further information

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