

Association Goes Beyond AUTOSAR

COMASSO e.V. offers AUTOSAR Basic Software

Ten years of AUTOSAR have demonstrated the potential of standards offering applicability across competitive boundaries. However, as long as the standardization continues to be confined to the specification level, the effort required for integration, configuration, and testing remains unnecessarily high. Initiated by Bosch, the non-profit association COMASSO e.V. has embarked on the road that will lead to the provision of an industry-wide reference for AUTOSAR Basic Software.

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May 2013. As much as the cooperation on the AUTOSAR platform has succeeded, a more recent closer look revealed that it was increasingly testing its limits. Because standardization at the specification level turned out to fall short of its goal, the Bosch Group decided to take the initiative. The time has come for AUTOSAR Basic Software (BSW).

A year has passed since Robert Bosch GmbH and ETAS GmbH jointly founded COMASSO as a registered non-profit association. Little by little, the list of members has grown to more than 20, among them enterprises such as MAN, CATERPILLAR, MAGNA, and AVL. Their platform provides for the joint planning, development, and testing of the AUTOSAR BSW.

Perhaps it seems unusual to do this within the framework of a registered association. However, during the pre-launch preparations, this type of organizational structure proved itself as the leanest and most democratic option for the joint software project. COMASSO is not profit-oriented but instead focuses

on a field of development that produces benefits for all participants. Accordingly, the deliberately low membership fees are earmarked only to cover the costs of infrastructure, administration, and accounting.

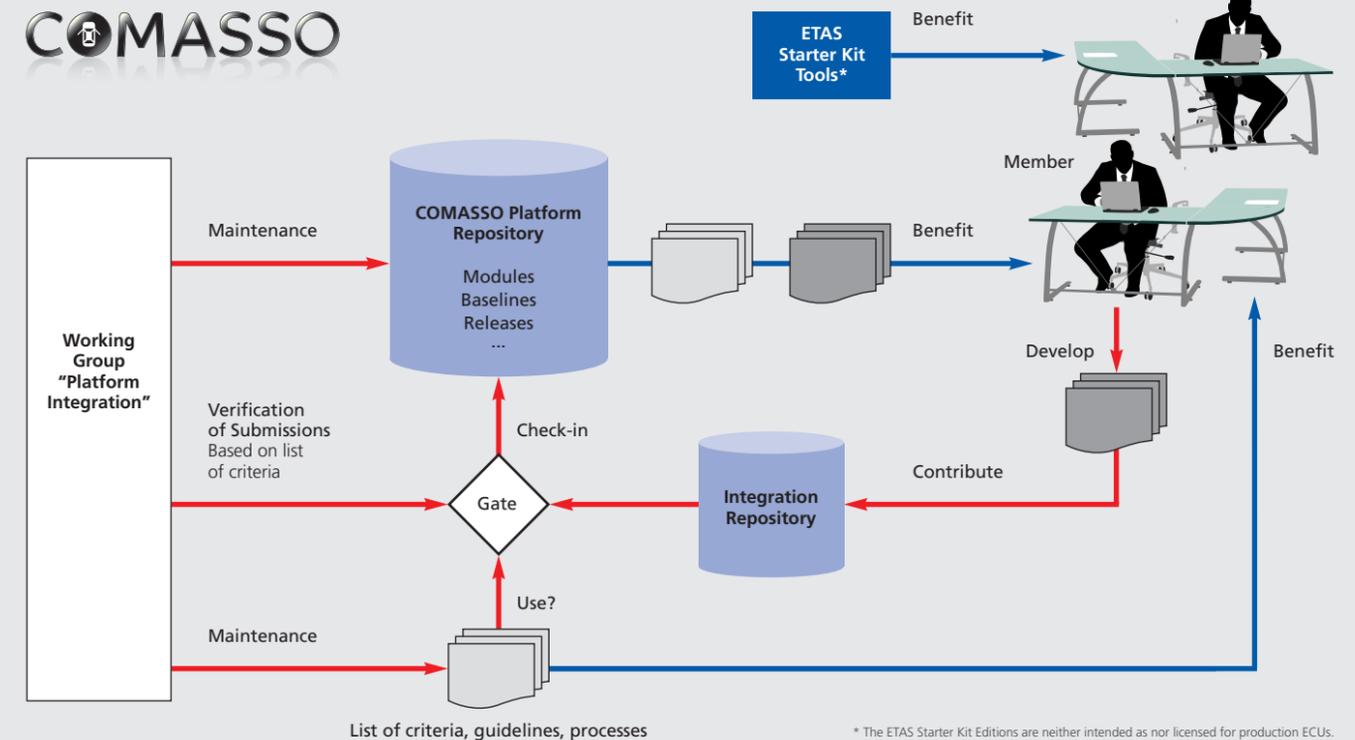
The original motive for the association's founding was the high rate of implementation diversity. In many projects, this variety increases the effort for integration, configuration, and testing, without providing customers or vendors with benefits arising from the additional expense. The free-of-charge BSW is intended to provide a remedy in all areas not affecting competition.

The AUTOSAR BSW is based on binding guidelines, processes, and criteria. A central working group that is open to all COMASSO members safeguards that all future modifications and further developments remain in keeping with these rules. The members are also encouraged and invited to contribute to the joint process by adding their own suggestions have been uploaded to the Integration Repository, they

are checked for conformity with association standards before they go to the Platform Repository. These repositories are accessible to all association members.

The association is open to all AUTOSAR members and their subsidiaries. The model thrives on participation and the association's members derive benefits from their participation, which provides their employees with automatic access to the BSW for training purposes, enabling them to submit their own ideas for insertion in development. They also enjoy both full rights of use in commercial projects and comprehensive protection by the association's IP-specific rules and bylaws.

One question remains: Why has Bosch seen fit to take the initiative outside of the AUTOSAR committees? There is a pragmatic answer: Because AUTOSAR focuses on specifications. Implementations such as those commonplace in open source projects are not part of that work. By founding COMASSO, Bosch has taken a step on short notice, which had been long over-



due. The objective was to identify and exploit AUTOSAR's full potential. To gather initial experiences, interested parties can use the COMASSO-based Starter Kit. The COMASSO and ETAS contact partners will be happy to answer more detailed questions.

ETAS supports COMASSO

At the founding of COMASSO, ETAS brought its many years of AUTOSAR experience to the table; it also provides a free Starter Kit that facilitates the first steps of working with the COMASSO Basic Software. For series production, too, the ETAS portfolio offers numerous attractive products and solutions:

- **ETAS RTA-OS/RTA-RTE:** These powerful AUTOSAR operating systems (OS) and the Runtime Environment (RTE) complete the AUTOSAR

platform software supplied by COMASSO. Because Bosch deploys RTA-OS and RTA-RTE in many instances, these are a natural first choice for the deployment of COMASSO Basic Software (BSW) in series production projects.

- **ETAS ISOLAR-A:** This AUTOSAR authoring tool supports AUTOSAR's entire configuration methodology, including the setup of the COMASSO BSW stack for individual ECU projects.

- **ETAS ISOLAR-EVE:** Already in the early phases of development, this powerful, PC-based virtual AUTOSAR ECU facilitates the efficient validation of AUTOSAR software. ISOLAR-EVE is capable of accommodating the AUTOSAR BSW from any vendor, while handling the COMASSO BSW components at the same time. This enables the user to start immediately

with efficient, high-quality development and validation of AUTOSAR software.

- **Comprehensive expert support:** The ETAS Embedded Software and Safety Consulting team offers comprehensive support for the introduction of COMASSO BSW, including training and support. ETAS experts provide support with the configuration and integration of COMASSO modules, customer-specific adaptations, plus extensions adding new functionalities and modules. ETAS also facilitates the deployment of reliable AUTOSAR Basic Software for users who neither wish to develop it for themselves nor choose to become an actual COMASSO member.

Cooperative model of COMASSO association