Concept 712: Safe HW-Acceleration API

Final release planned for R25-11

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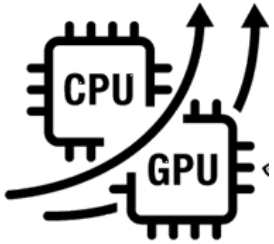
Safe hardware acceleration API
Released with R24-11

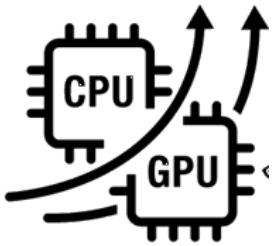


Problem	Solution
There is no standardized way to connect hardware acceleration to the AUTOSAR Adaptive platform. Hence applications integrate 3rd party toolchains by proprietary adaptions for AUTOSAR Adaptive and are therefore only limited reusable.	The introduction of a **standardized API for safe hardware acceleration** significantly **improves the reusability** of applications for ADAS or similar systems.
Mostly tools for work with hardware acceleration require deep low-level expertise	Therefore, the **requirements are documented** according to the AUTOSAR process and the general automotive safety rules.

Hardware agnostic support for high performance computing like ADAS

Safe hardware acceleration API

Final release planned for R25-11



Problem	Solution
There is no standardized way to connect hardware acceleration to the AUTOSAR Adaptive platform. Hence applications integrate 3rd party toolchains by proprietary adaptions for AUTOSAR Adaptive and are therefore only limited reusable.	AUTOSAR **specified a standardized C++ API** • to be at an optimal level of abstraction, • designed to be efficient and • convenient for application developers to **use the hardware acceleration units** of a processor **and to reuse** their **applications** in different systems.
Mostly tools for work with hardware acceleration require deep low-level expertise	

Hardware agnostic support for high performance computing like ADAS