Visteon®

NEWS RELEASE

Visteon's DriveCore™ autonomous driving platform explained

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Visteon’s DriveCore™ solution is an autonomous end-to-end driving platform incorporating three components: DriveCore™ Runtime – a framework and middleware that transfers PC development to embedded software; DriveCore™ Compute – a modular and scalable computing hardware platform; and DriveCore™ Studio – a PC-based tool for algorithm development.

The system’s development toolchain simulates real sensors and provides a conducive environment that enables open collaboration with third-party providers through advanced algorithms. Offering functionality that can support Level 3-4 autonomous driving, DriveCore™’s scalable computing hardware and middleware fills the system integration gap in the current self-driving ecosystem.

Establishing a failsafe centralized computing platform, DriveCore™ Compute is modular and scalable and offers a flexible silicon choice to Visteon’s global customers. The system scales from Level 2-5 autonomous driving, supporting a wide range of self-driving functions.

With a highly dynamic workload and data sharing concept, Compute can be used on any high-end multi-domain system and provides a common hardware platform for ADAS, infotainment, cluster, gateway and any hybrid.

Runtime is Visteon’s secure communication layer open API – a dedicated framework that runs on the DriveCore™ Compute platform. It is time-synchronized and offers real-time processing, transferring PC development to embedded software.

Housed in a secure framework that sandboxes algorithms, Runtime is optimized for a centralized computing unit, enhanced for multi-core, multi-processor architectures. Performance is maximized by leveraging native accelerators and facilitates APIs for third-party app developers.

There is an identical communication layer across the Runtime platform to DriveCore™'s Studio and Compute for seamless integration between applications – running natively or remotely.

DriveCore™ Studio is an advanced algorithm development tool that helps to compare and contrast performance and actual execution of those algorithms on DriveCore™ Compute hardware. The platform incorporates a set of well-known developer tools that are configured, enhanced and connected in a way to enable efficient testing, profiling and growth of algorithms designed to run on the DriveCore™ Runtimeenvironment.