

DriveCore™ explained: Demonstrating Visteon's autonomous driving platform

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Steadily building awareness and credibility of its capabilities in the ADAS domain, Visteon paves the way for autonomous driving by offering automotive manufacturers a complete portfolio of technologies that, with the increasing automation of vehicles, provides new approaches to user experience and interaction with the vehicle and the environment.

The DriveCore™ autonomous driving solution is an open, scalable platform that allows automakers, developers and suppliers to collaborate on innovations addressing the new demands of autonomous driving. Based on a central domain controller, DriveCore™ incorporates artificial intelligence (AI) for object detection and tracking, sensor fusion, situation analysis and behavioral planning.

Addressing evolving industry trends, the end-to-end DriveCore™ platform incorporates three components:

- Compute – a modular and scalable computing hardware platform
- Runtime – a framework and middleware toward embedded development
- Studio – a PC-based tool for algorithm development

Leveraging these advanced functionalities, DriveCore™ enables **Highway Pilot**, which relieves the driver from their primary driving tasks. It includes automatic cruise control, lane centring, automatic lane change and overtaking.

In **valet parking** mode, the vehicle searches for a free parking space. Path planning for pedestrians and obstacle detection and avoidance are employed as part of the system.

Visteon's DriveCore™ is the first fully scalable solution for Level 2+ to Level 4 autonomous driving applications. The company currently has a co-development program for DriveCore™ with automaker GAC of China, and is also in advanced discussions with other global vehicle manufacturers.