DENSO Selects eSOL's RTOS-based Software Platform for its Driver Status Monitor

Tokyo, Japan. October 24, 2014 – eSOL, a leading developer of real-time embedded software solutions, announced today that DENSO Corporation has adopted eSOL's eT-Kernel RTOS-based software platform for use in its Driver Status Monitor. The Driver Status Monitor has been designed to detect driver's state such as time of eye-closure and drowsiness level. The eT-Kernel Platform includes the eT-Kernel real-time operating system (RTOS), eBinder IDE, middleware components—including file systems, USB stacks, network protocols, and GUI—backed by professional services. The eT-Kernel Platform contributed to ensuring fast real-time performance and high reliability while enabling efficient software development.

The Driver Status Monitor consists of a near-infrared camera and an electronic control unit (ECU). The camera takes the pictures of driver's face, and the ECU analyzes them to determine the angle of the head and openness of the eyelids. If the eyes are closed or the driver doesn't face front for a certain period of time, an alarm will appear to warn the driver to drive safely.

The eT-Kernel Multi-Core Edition RTOS and eBinder IDE were used to develop the Driver Status Monitor. Since its launch in 2006, the eT-Kernel Multi-Core Edition has been adopted in a wide variety of embedded systems including DENSO's car navigation systems. The eT-Kernel Multi-Core Edition for multi-core processors features eSOL's unique Blended Scheduling™ technology that permits the coexistence of symmetric

multiprocessing (SMP) and asymmetric multiprocessing (AMP) subsystems for flexible system design. The eBinder IDE, tightly integrated with the eT-Kernel Multi-Core Edition, provides various tools for debugging and system analysis of both single-core and complex multi-core systems, which facilitates the efficient development of high-quality software.

The eT-Kernel Platform has been used in various systems such as ADAS (Advanced Driver Assistance System) including omnidirectional multi-camera system, In-Vehicle Infotainment systems including car navigation and car audio, office automation equipment, and digital consumer products, and is known for its proven reliability and quality. The eT-Kernel and eBinder are expected to obtain ISO26262 certificate for ASIL (Automotive Safety Integrity Level) B functional safety capability by an independent third-party accredited certification body in the fourth quarter of 2014. eSOL's ISO26262-certified RTOS and IDE will help users to meet functional safety standard more easily and ensure high system reliability for automotive software development.

"We are pleased to announce that DENSO selected our eT-Kernel Platform for the Driver Status Monitor followed by their car navigation system and digital tachograph equipped with a driver recorder," said Hiroaki Kamikura, General Manager of the Embedded Products Division, eSOL. "eSOL has been improving the quality, performance and function of eT-Kernel Platform to ensure high real-time capabilities and reliability which are required for automotive devices. We will continue to support development of ever-evolving in-vehicle system by providing our eT-Kernel, eBinder, and professional services which are based on accumulated know-how and experiences."

About eSOL

eSOL is a leading embedded software developer that enables customers to accelerate development of applications based on high-end single-core, multi-core, and many-core embedded processors. eSOL's advanced, scalable, multi-profiled real-time operating systems are tightly integrated with development tools and middleware components to create flexible development platforms used by OEMs and ODMs worldwide in competitive vertical markets such as automotive, consumer electronics, industrial and medical equipment, and aerospace. Founded in 1975, eSOL is based in Tokyo, Japan.

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