eSOL Adapts their Many-core OS to the Autonomous Driving Technology Platform

eSOL Participates in the Urban Driving Working Group of the Internet ITS Consortium Launched Today by Nagoya University

Tokyo, Japan, September 16, 2014 – eSOL, a leading developer of real-time embedded software solutions, announced that it joins the Urban Driving Working Group (UDWG) that was launched in the Internet ITS Consortium today. eSOL aims at adapting the eSOL eMCOS many-core real-time operating system (RTOS), the world's first commercial RTOS for embedded many-core processors, to the autonomous driving technology platform. With eMCOS, and the expertise and abundant experience of developing the highly reliable RTOS platform for automotive systems including Advanced Driver Assistance Systems (ADAS), eSOL will contribute to deployment of the autonomous driving technology.

UDWG, established by Nagoya University and associates, promotes the field operations test to deploy autonomous driving technology and expand its potential market. Autonomous driving includes recognition of the surrounding environment and operation assistance. It requires real time processing of a significant number of calculations using a large amount of data obtained through cameras, various types of sensors, and V2X communications. It thus requires high-powered processors to execute those. Many-core technology meets such requirements by achieving high performance and optimal energy efficiency.

To maximize many-core processors, eMCOS features a totally different architecture from conventional RTOSes for single-core and multi-core processors. eSOL's unique, patent-pending scheduling algorithm ensures the real time capability required in embedded systems as well as the high throughput and scalability expected from many-core processors. eSOL eMCOS SDK will soon be available. It integrates the eSOL eMCOS IDE Plug-in tools, consisting of system analysis tools and utilities, and middleware components including network protocol stacks, file systems, and USB stacks.

eSOL plays a leading role in promoting many-core technology and building its new ecosystem. eSOL actively works with both academic institutions and domestic and international industry groups, and presents papers at academic conferences. eSOL chairs the Software-Hardware Interface for the Multi-Many-Core (SHIM) working group in the Multicore Association® (MCA).

"Active movements for practical use of autonomous driving technology accelerated recently, as seen by governments arranging relevant laws and policies, and major automobile companies announcing its commercial realization," said Masaki Gondo, Software CTO and GM of Technology at eSOL. "We expect UDWG will lead and further accelerate this trend. Many-core technology is the most appropriate for autonomous driving systems that require significant processing capability. eSOL will contribute to practical realization of autonomous driving technology, making the best use of our advanced many-core technology, proven technical skills, and deep knowledge on high-quality automotive systems development."

Press release from Nagoya University (September 16, 2014)

Nagoya University Launches a New Working Group on the Field Operational Test of Autonomous Driving Technology < http://www.pdsl.jp/press/urban-drive-2014-en/>

About eSOL

eSOL is a leading embedded software developer that enables customers to accelerate the development of applications based on high-end embedded processors, including multi-core. eSOL's advanced, scalable, and 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.

For more information, please visit http://www.esol.com/