

eSOL's eT-Kernel Real-Time Operating System

Evaluation Kit Now Available for Altera SoC

Permits Developers a Free 30-day Evaluation of the Cyclone V SoC Device with the integrated ARM Cortex-A9 MPCore Processor and eT-Kernel RTOS

Tokyo, Japan. July 28, 2014 – eSOL, a leading developer of real-time embedded software solutions, announced that the eT-Kernel Evaluation Kit is now available for Cyclone® V SoC, which integrates the dual-core ARM Cortex-A9 MPCore processor with the FPGA fabric systems. The Evaluation Kit features all the required base software for application development, including eSOL's eT-Kernel Multi-Core Edition real-time operating system (RTOS), tightly integrated with the eBinder Integrated Development Environment (IDE), middleware components, and device drivers. With the free 30-day evaluation license, developers can easily and quickly evaluate the performance and quality of Cyclone V SoC and eT-Kernel. eT-Kernel facilitates the reuse of the software assets developed for ulTRON, the most popular RTOS in Japan and Asian countries, because of its inheritance functions and architecture.

Runtime software in the eT-Kernel/Cyclone V SoC Evaluation Kit includes dedicated device drivers for on-chip controllers on the Cyclone V SoC Development Board (*) including the SD Memory Card, USB host, and Ethernet controllers, plus middleware components including file systems, network protocol stacks, and a USB host stack.

The eBinder IDE offers a wide variety of development tools, including ARM's genuine compiler. These tools enable developers to quickly verify the behavior and performance of a target sample application running on Cyclone V SoC. eBinder assists in efficient application development in less time at lower cost for Cyclone V SoC through its multi-programming tools, which are important in developing software on multi-core processors. It also has useful functions for debug and analysis of complex multi-core systems.

Altera SoCs integrate a dual-core ARM Cortex-A9 processor and FPGA to achieve both good performance and flexibility of programmable logic, while pursuing lower power consumption, less cost, and smaller board size. Developers can continue to use the eT-Kernel RTOS-based software platform for commercial projects, to efficiently develop software reusing ITRON software assets, and to secure high real-time capability and reliability while making full use of the features of Altera SoCs. Altera SoCs are ideal for a wide variety of devices such as FA and industrial equipment (industrial networking and motor control), in-vehicle and broadcast equipment (capture card and video conversion), and consumer electronics (display).

eSOL has been working closely with Altera through technical liaisons and exchanging information on the product roadmap. eSOL is committed to strongly support Altera SoC-based software developers by utilizing their expertise in real-time operating systems, and their technical know-how based on extensive experience and deep knowledge of ARM processors.

“We are pleased that eSOL, a leading developer of the TRON OS, which is the most common real-time operating system in Japan, now offers a 30-day trial version of the easy-to-use eT-Kernel Platform for Cyclone V SoC,” said Takayuki Oyama, Product Marketing Manager of Altera Japan. “The Evaluation Kit supports both Altera’s full-featured Cyclone V SoC Development Kit and low-cost Helio Board provided by our distributor Altima Corporation. Software developers can choose either Altera’s Cyclone V SoC Development Kit for advanced systems which require the highest processor performance or Altima’s Helio Board for evaluation of Altera SoC at low cost. We expect that Altera SoC will be adopted more broadly since the eT-Kernel Platform is available, which consists of the multi-core RTOS, eBinder IDE, middleware components, and device drivers, for different target boards to meet various needs for cost and performance.”

“The eT-Kernel/Cyclone V SoC Evaluation Kit with a 30-day free trial period enables easy evaluation of eT-Kernel for multi-core processors, which get better performance out of

Altera's Cyclone V SoC," said Hiroaki Kamikura, General Manager of the Embedded Products Division, eSOL. "eSOL has many years of experience in supporting ARM processors from entry-level to high-end, and in providing professional services including technical support. We will provide strong support for those who continue to use Altera SoC and eT-Kernel after the trial period of 30 days, so that they can actually conduct commercial development without any stress."

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.

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

Notes

* The supported target boards for this evaluation kit are Altera's Cyclone V SX SoC Development Board and Altima's Helio Board. The boards are not included in this evaluation kit, and are available through Altera's authorized distributors.

** The contents of the package may differ from Japan and abroad.