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Altera Demonstrates Integrated PLC and HMI System on a Single Chip at SPS Drives 2013

Cyclone V SoC Solution Developed with 3S-Smart Software Solutions and EXOR International Reduces Time-to-Market for Factory Automation System Vendors

San Jose, Calif., November 28, 2013—[Altera Corporation](http://www.altera.com) (NASDAQ: [ALTR](http://www.altera.com)) today announced a key development in automation system design at SPS Drives 2013, in Nuremberg, Germany - implementation of a programmable logic controller (PLC) and human machine interface (HMI) system on a single chip. The integrated PLC/HMI system is implemented on a single 28 nm Altera Cyclone® V SoC, and will be offered as a reference design by Altera in 2014.

Altera is partnering with a leading PLC software developer, 3S-Smart Software Solutions GmbH, as well as with a leader in HMI development, EXOR International SpA, to create the integrated solution combining embedded software, graphics libraries, powerful application-class processors and programmable silicon to accommodate all the custom backplane and peripheral requirements for automation systems.

3S-Smart Software Solutions is the manufacturer of CODESYS, the leading hardware independent IEC 61131 development system and run-time software used in factory automation systems for system control, fieldbus connectivity (such as EtherCAT), motion control and safety.

EXOR International is leading global manufacturer of HMI products and customizes HMI systems by using its JMobile® powerful graphics software. The company has a legacy of integrating software on embedded platforms such as SoCs and FPGAs to build custom factory automation controllers.

“Combining the unique expertise of the three companies, Altera can showcase a single-chip implementation of a powerful PLC with integrated HMI-capable 2.5D graphics,” said Suhel Dhanani, senior strategic marketing manager, Industrial Business Unit, Altera Corporation. “A

single-chip PLC/HMI combo system provides cost, power and time-to market benefits for today's factory automation system vendors.”

“CODESYS continues to maintain its leadership by providing this timely support for Altera Cyclone V SoCs,” said Roland Wagner, head of product marketing, 3S-Smart Software Solutions. “We support solutions that remake PLC computing system architectures and enable factory automation systems to improve their time to market.”

“Our JMobile® HMI platform in combination with the Altera Cyclone V SoC enables us to deliver an innovative solution which raises the level of integration in industrial HMI and PLC,” said Giuseppe Pace, CEO, EXOR International.” EXOR International offers customers the HMI experience and the environment that can enable them quickly create new products.”

Altera's Cyclone V FPGAs provide the industry's lowest system cost and power, along with performance levels that make the device family ideal for differentiating high-volume applications. Altera Cyclone® V FPGAs offer up to 40 percent lower total power compared with the previous generation, efficient logic integration capabilities, integrated transceiver variants, and a SoC device with an ARM®-based hard processor system (HPS).

Availability

The complete and validated PLC/HMI system design showcased at the SPS Drives 2013 will be available as a reference design in 2014. Customers can also license the PLC software and the JMobile graphics library directly from [3S-Smart Software Solutions](#) and [EXOR International](#), respectively.

Altera's portfolio of low-cost CPLDs, FPGAs and SoCs are available today, as are development kits supporting the portfolio from Altera. For a detailed look at Altera's low-cost portfolio, visit <http://www.altera.com>.

About Altera

Altera® programmable solutions enable designers of electronic systems to rapidly and cost effectively innovate, differentiate and win in their markets. Altera offers [FPGAs](#), [SoCs](#), [CPLDs](#), [ASICs](#) and complementary technologies, such as power management, to provide high-value

solutions to customers worldwide. Follow Altera via [Facebook](#), [Twitter](#), [LinkedIn](#), [Google+](#) and [RSS](#), and [subscribe](#) to product update emails and newsletters. Visit <http://www.altera.com>.

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