

DDC-I's Deos Safety-Critical RTOS Available for North Atlantic Industries' (NAI) ARM Cortex-A9 Single Board Computers and Systems

Integrated, modular NAI platforms use Deos to streamline DO-178 certification and reduce bounded response times for safety-critical industrial, commercial and military applications

Phoenix, AZ. March 2, 2017. DDC-I, a leading supplier of software and professional services for mission- and safety-critical applications, and North Atlantic Industries, a leading provider of embedded systems for mil/aero applications, today announced the availability of DDC-I's Deos safety-critical real-time operating system for NAI's ARM® Cortex®-A9 SBC and system products. NAI's I/O-configurable SBC and systems, equipped with Deos, give developers targeting safety-critical commercial, industrial and military applications a rugged, reusable, DO-178 certifiable platform that combines high-performance processing and configurable I/O in a compact, low-power package.

NAI's SBC and systems are based on NAI's unique Custom-On-Standard-Architecture™ (COSA®), which offers highly configurable solutions on standard platforms, with a choice of over 40 intelligent I/O, measurement and simulation, communications and Ethernet switch functions. NAI systems provide the highest packaging density and greatest flexibility of any SBC or system in the industry.

“Advanced features like time/space partitioning and slack scheduling, together with reusable certification evidence, make Deos an ideal environment for developing, hosting, and certifying safety-critical ARM Cortex-A9 applications deployed on ARM SBCs,” said Greg Rose, vice president of marketing and product management at DDC-I. “Together, the NAI 75ARM1 SBC and Deos provide a modular core platform with reusable certification evidence that can be rapidly reconfigured and recertified for a broad range of demanding safety-critical applications.”

“We are pleased to be working with DDC-I to offer our joint customers an integrated platform that features a best-in-class safety-critical RTOS and our COSA technology,” states Lino Massafra, vice president of sales and marketing at NAI. “Developers requiring the highest level of design assurance for reliable operation in safety-critical applications now have a flexible, high-performance, off-the-shelf solution that accelerates deployment of safety-critical systems.”

Deos is an embedded RTOS that has been used in hundreds of safety-critical avionics applications on commercial and military aircraft. Certified to DO-178 DAL A since 1998, the time and space partitioned RTOS features deterministic real-time response and employs patented technologies for reducing resource contention. Deos is the only certifiable time and space partitioned COTS RTOS that has been created using RTCA DO-178, Design Assurance Level A (DAL A) processes from the very first day of its product development. Deos' unique modular design and verification evidence provides the easiest, lowest cost path to DO-178C DAL A certification, the highest level of safety criticality.

NAI's ARM SBCs and systems are based on the Xilinx® Zynq Z-7015 SoC, which combines an 800-MHz ARM Cortex-A9 with 28-nm Xilinx programmable logic (PL). Consuming less than 5W, the SBC may be configured as either a system controller or peripheral. The ARM SBC features 512 MB DDR3L SDRAM, up to 32 GB of SATA II NAND Flash, front and rear I/O, dual Gigabit Ethernet, RS-232, an I²C Bus, and Background Built-In-Test (BIT) for continuous I/O monitoring.

About DDC-I, Inc.

DDC-I, Inc. is a global supplier of real-time operating systems, software development tools, custom software development services, and legacy software system modernization solutions, with a primary focus on mission- and safety-critical applications. DDC-I's customer base is an impressive "who's who" in the commercial, military, aerospace, and safety-critical industries. DDC-I offers safety-critical real-time operating systems, compilers, integrated development environments and run-time systems for C, C++, Ada, and JOVIAL application development. For more information regarding DDC-I products, contact DDC-I at 4600 E. Shea Blvd, Phoenix, AZ 85028; phone (602) 275-7172; fax (602) 252-6054; e-mail sales@ddci.com or visit <http://www.ddci.com/pr1702>.

About NAI

NAI is a specialized provider of embedded electronics and computing for sense & response-intensive, military and aerospace applications. NAI accelerates clients' time-to-mission with a unique approach based on Custom-on-Standard-Architecture™ (COSA®) that delivers the best of both worlds: custom solutions from standard COTS components. For over 50 years, companies like Boeing, Northrop Grumman and Raytheon have leveraged NAI's capabilities to meet the demanding requirements of a wide range of I/O and communication-centric applications, and do so with uncompromising quality, efficiency and responsiveness. Information about NAI and its products can be found at www.naii.com.