Core Avionics & Industrial Inc.
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CoreAVI Announces TrueCore™, a Software Safety Monitor for COTS GPU Avionics Display Systems Requiring FAA DAL A Safety Certification

TrueCore™, CoreAVI's real-time software GPU safety monitor, is an innovative approach that enables the use of COTS graphics processors in avionics and other safety-critical display systems, without the need for external FPGA based safety monitors. CoreAVI completed a product design meeting on TrueCore with the FAA where it was concluded that the product addresses the certification concerns associated with use of complex COTS Graphics Processors in systems requiring Level A compliance.

Munich, Germany. Aviation Electronics Europe, April 20, 2016. Core Avionics & Industrial Inc. ("CoreAVI") announced today the availability of TrueCore, a real-time software safety monitor designed to analyze and monitor the data integrity of advanced graphics processors and display controllers used in safety-critical display systems. TrueCore enables Federal Aviation Administration (FAA) and European Aviation Safety Agency (EASA) Design Assurance Level (DAL) A certification of systems using commercial off-the-shelf (COTS) graphics processors and addresses the concerns in Certification Authority Software Team (CAST) Position Paper 29 - *Use of COTS Graphical Processors (GCP) in Airborne Display Systems*.

TrueCore is CoreAVI's latest addition to its product portfolio that supports customers in development of safe and robust avionics display systems. TrueCore allows real-time and continuous monitoring of the health of a graphics processor in order to prevent the display of hazardously misleading information (HMI). The use of TrueCore eliminates the need for costly FPGA hardware that has traditionally been used to monitor graphics processors in safety-critical certified primary flight displays. The software monitor architecture supports multi-core and hypervisor platforms ensuring the integrity of a graphics processor, display controller and the graphics driver across multiple and independent partitions and guest operating systems.

"We have adopted CoreAVI's TrueCore product suite for deployment in our graphics modules enabling high end GPU performance for safety critical applications," said Yves Mathys, COO of Creative Electronic Systems (CES). "There are significant performance and cost benefits realized by using CoreAVI's software GPU monitor to achieve FAA/EASA certification compliance. These benefits include a greater control over GPU health monitoring and rapid reaction to any GPU faults."

"CoreAVI continues to invest heavily in the research and development of unique products that allow our customers to achieve greater performance, precision, and reliability in their safety certification programs," said Lee Melatti, CEO at CoreAVI. "We have also taken the initiative to work directly with the FAA to help ensure that systems based on our products attain certification compliance, thereby reducing schedule, cost and risk for our customers."

For detailed product information please contact sales@coreavi.com

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About Core Avionics & Industrial Inc.

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Core Avionics & Industrial Inc. (“CoreAVI”), a Channel One company, provides “program ready” embedded graphics and video processors and advanced graphics solutions to mil-aero and high reliability embedded systems manufacturers. CoreAVI’s products include 20+ year component supply management, temperature-screened versions of the AMD Radeon™ graphics processors and embedded graphics and video driver support for real time operating systems and safety critical platforms. CoreAVI’s program support includes complete RTCA DO-178C / EUROCAE ED-12C Level A safety critical certification evidence for safety critical environments. www.coreavi.com