Innovative Safety-Critical HMI Solution Revolutionizes Embedded Systems

Orlando, Florida Jul 25, 2024 (Issuewire.com) - Today marks a significant advancement in the aerospace and automotive sectors with the launch of a groundbreaking Safety-Critical Deployment Solution. This state-of-the-art deployment stack integrates DiSTI's GL Studio SC HMI software, SYSGO's PikeOS, NXP® Semiconductors' i.MX 8 applications processor, CoreAVI's VkCore® SC graphics, and compute software suite. It sets new safety, reliability, and efficiency standards, leveraging the latest technologies and adhering to current industry safety standards.

Key Features Of The Safety-Critical Deployment Solution Include:

DISTI's GL Studio SC HMI software: Offering cutting-edge graphical interface development tools, GL Studio SC empowers developers to create immersive and intuitive user interfaces while adhering to the highest safety standards.

SYSGO's PikeOS: As the leading hypervisor and real-time operating system, PikeOS ensures the deterministic behavior of embedded systems and their security. It enables seamless integration of critical and non-critical applications through strict partitioning and is certified to the highest industrial safety standards.

NXP's i.MX 8 applications processor: This powerful and versatile hardware platform provides the performance and scalability required for complex safety-critical applications, ensuring optimal task execution in demanding environments.

CoreAVI's VkCore SC: The suite of tools and libraries that enable the development and runtime deployment of accelerated GPU compute and graphics applications. Engineered to deliver maximum performance and reliability, CoreAVI's VkCore SC product suite enables the scalability of safe compute capabilities and advanced graphics rendering with seamless integration of OpenGL SC1, OpenGL SC2, and Vulkan SC graphics APIs, ensuring smooth and consistent graphical rendering in safety-critical environments.

Chris Giordano, VP of UI/UX Technology at <u>DiSTI</u>, stated, "We are excited to collaborate with industry leaders to introduce this revolutionary Safety-Critical Deployment Solution. With safety as our top priority, this solution represents a significant advancement in meeting the evolving demands of the aerospace and automotive industries. The avionics market benefits from the UX/UI design and HMI workflow capabilities for rapid iteration and target deployment, while the automotive market gains from rigorous software development processes that produce airworthy embedded software and graphics."

Franz Walkembach, VP of Marketing & Alliances at SYSGO, added, "Our collaboration enables the automotive and avionics industries to build innovative and robust systems. We are proud to take the next step and provide excellent solutions to our customers."

Dan Joncas, Deputy CEO at CoreAVI, commented, "We are dedicated to technology partnerships that bring integrated tools and deployable solutions to the market, driving efficiency and performance for our customers. This joint safety-critical deployment enables avionics and automotive integrators to leverage the most advanced GPU capabilities."

Dan Loop, Vice President and General Manager of Automotive Edge Processing at NXP, remarked, "Delivering an enhanced graphics experience in safety-critical deployment solutions is essential. NXP continues to advance safe automotive solutions with our widely adopted i.MX application processors offer high-performance and low-power capabilities that are scalable, safe, and secure. NXP and DiSTI will provide a robust solution for multimedia and display applications in automotive and aerospace with i.MX SoCs and GL Studio."

Attendees at the Embedded World conference in Nuremberg, Germany, and Aerospace Tech Week in Munich, Germany, this April will be among the first to experience firsthand demonstrations of this Safety-Critical deployment.

About DiSTI

DiSTI is a global leader in developing graphical user interfaces, providing advanced HMI development tools and services for aerospace, automotive, and other industries. For those interested in learning more about safety-critical HMI or embedded systems solutions provided by DiSTI, please contact sales@disti.com.

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