MANNARINO launches M-RTOS: A novel real-time operating system for aerospace and defense applications

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Mannarino Systems & Software Inc. (MANNARINO) of Montreal, Quebec, Canada today announces the launch of its proprietary real-time operating system, M-RTOS. This revolutionary software offering is designed with aerospace certification in mind.

M-RTOS is a modular, flexible and affordable operating system for a wide range of aerospace applications, from Commercial Off-The-Shelf (COTS) electronic hardware to federated LRU (Line-Replaceable Unit) aircraft systems, to IMA (Integrated Modular Avionics) platforms. M-RTOS was developed to minimize memory and timing usage. It guarantees robust spatial and temporal partitioning and can run on microprocessors incorporating memory protection.

M-RTOS was designed to outperform the competition on all key benchmarks. Its “clean-sheet” design eliminated the need to support legacy interfaces, code or configuration files. M-RTOS is fully compliant with ARINC-653, the industry standard for operating systems. It is RTCA/DO-178C certifiable to any Design Assurance Level (DAL).

“M-RTOS was crafted by aerospace engineers for aerospace application developers. Integrated with M-RTOS, the MANNARINO Workbench is an innovative development environment that simplifies teamwork and collaboration and maximizes efficiency,” said Nicolas Ulysse, Chief Software Engineer.

Another distinguishing characteristic of M-RTOS is its affordable pricing structure. Pricing based on microprocessor rather than end-use product allows customers to optimize technology choices across their product portfolio. Features and DAL can be tailored for individual software and technical requirements and budget constraints. Flexible commercial terms, simplified licensing and a subscription-based approach facilitate the purchase.

“Memory and timing improvements of more than 50% relative to market leaders enable users to build larger and more powerful applications. In addition, M-RTOS offers significant savings in the cost of ownership – at least 50% to 70% depending on the required DAL,” said John Mannarino, President.

Montreal-based MANNARINO has two decades of internationally recognized expertise in aerospace engineering including the development, verification and validation of safety-critical systems, certifiable software and electronic hardware. It is also an accredited Canadian DAO (Design Approval Organization). With the introduction of M-RTOS, the company is the only COTS RTOS supplier with certification delegation.

For further details visit MANNARINO at www.mss.ca or contact Mario Iacobelli, Senior Product Manager at Mario.Iacobelli@mss.ca