For Immediate Release

Mistral announces the availability of the new Inter-Processor Communications (IPC) Software from Curtiss Wright

Software Library Simplifies Development of Switched Interconnect Solutions with Messaging and Global Shared Memory Support

January 2007 – Mistral Solutions, a leading player in the niche real-time embedded and telecom solutions sector, has announced the availability of the latest version of the popular Inter-Processor Communications (IPC) software library – the IPC 2.0 from Curtiss Wright Embedded Computing. The IPC 2.0 is used for building high-performance multi-processor DSP VPX and VPX/REDI-based (VITA 46/VITA 48) platforms employing switched interconnect technology. Designed for use in demanding signal processing applications such as radar, sonar and signal intelligence, the new IPC 2.0, with its support for Serial RapidIO (SRIO) is ideal for DSP applications designed with the latest high bandwidth, switched serial fabric-based VPX technology.

IPC 2.0 supports two communications models. Its messaging API provides the foundation for control and synchronization between processors with priority-based, flow-controlled and acknowledged messages. IPC 2.0 also provides a global shared memory model that is used for the transfer of large datasets. With support for global shared memory, IPC 2.0 eases the porting of software between hardware and middleware environments, making it faster and simpler to migrate from legacy VME64x-based platforms to the new high performance VPX/VPX-REDI architectures. IPC 2.0 VPX/VPX-REDI Hardware Support includes CHAMP-AV6 Quad PowerPC 8641/8641D DSP engine and SVME/DMV-185 PowerPC 8641/8641D SBC.

The IPC library also provides support for high availability systems. With functionality to allow dynamic entry and exit of nodes from a system, developers can construct systems with n+1 redundant sparing techniques that exhibit minimal downtime to reconfigure after a board failure.

IPC 2.0 provides prioritized, queue-driven flow-controlled message passing for command and control as well as block transfers for high-volume time-perishable data. A POSIX compliant interface is provided with standard *open*, *close*, *read*, *write*, and *ioctl* functions. An extended interface provides control over additional features. Further, the IPC 2.0 also provides a single API for task-to-task communications where tasks can be resident on the same processor, same board, or on boards connected via switched interconnect.

Data transport features in IPC 2.0 address common scenarios in signal processing algorithms where frequently, a single data matrix is divided between processors and reconstructed during the processing stages. For corner turn operations, IPC supports multiple senders writing to a single receiver and strided

data movements to facilitate operation on large matrices that have been partitioned. When supported by the operating system, IPC 2.0 can perform copyless message retrieval to eliminate the time wasted by making local copies of incoming messages.

IPC 2.0 is supported for use with the VxWorks 6.3 real-time operating system.

About Curtiss Wright

Curtiss-Wright Controls Embedded Computing is a leading global supplier of embedded boards and integrated electronics subsystems for diverse markets and applications including Defense & Aerospace, Medical Imaging, and Industrial Process Control. They serve the embedded industry with an unmatched array of innovative technology and solutions. Their rugged and commercial-grade products, advanced system integration services and lifecycle services programs enable customers to focus on their core competencies to ensure their success.

About Mistral Solutions

Mistral Solutions is a professionally managed technology house undertaking Systems Integration and providing Value added Services. It provides specialized hardware and software solutions in the Embedded domain, as well as Professional Services in Systems Design and Development, Real-Time Applications, and Communications.

By virtue of its core technical expertise, Mistral has valued alliances with leading global companies and it markets scalable computer platforms from Motorola Embedded Communications Computing (previously Force Computers), RTOS and IDE tools from Wind River Systems Inc., telecommunications solutions from NMS Communications, commercial & rugged grade COTS computing solutions from Curtiss Wright (Dy4 Systems, VISTA Controls, Synergy Microsystems, Systran, Peritek, Prima Graphics), board level computers for Industrial Applications from MEN Mikro Electronik, Single Board Computers for VMEbus and CompactPCI from Microsys, high-availability Network Service-Ready Platform (NSRP) solutions from Continuous Computing Corporation, standard and custom products for commercial, military, high-tech, medical, telecom, and research markets from Dawn VME, I/O modules from General Standards Corporation, modified COTS products for military, aerospace, and avionics applications from Targa Systems, Software Defined Radio solutions from Pentland Systems and high quality storage solutions from DNF Storage.

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