Macraigor Systems Offers New GNU Remote Protocol for High-Speed Debugging Tool

• Features Ethernet, Parallel and Serial Ports
• Provides Full GNU and Multiprocessor Support in One Unit
• Supports Industry-Leading Software Debuggers and Microprocessors

BROOKLINE VILLAGE, MA–August 9, 2004–Macraigor Systems LLC, a leader in on-chip debug (OCD) technology, today introduced the latest version of mpDemon, a high-speed debugging tool built on Macraigor’s proprietary On-Chip Debug Technology (OCDemon). mpDemon’s newest features include Macraigor Systems’ applications programming interfaces (APIs) and the standard GNU Debugger (GDB) remote protocol allowing instant “plug and play.” Concurrently, mpDemon supports multiple CPUs on a single scan chain, allowing the user to debug any and all devices. Designed for price-sensitive customers, mpDemon also includes 10BaseT Ethernet, parallel and serial interfaces to the host system. Having three connection types provides developers maximum flexibility when debugging their target board and applications.

mpDemon operates at a very high speed, faster than Macraigor’s Raven and Wiggler products, downloading binary files to the target. This higher performance is a result of an embedded 32-bit microprocessor that significantly increases JTAG throughput. With higher clock speeds, information is sent to and from the target board much faster, increasing binary downloads, single stepping and other target communications.

mpDemon works with the existing APIs from Macraigor Systems and is completely compatible with industry-leading software debuggers and microprocessor architectures such AMD, ARM, ColdFire, CPU32 Series, PowerPC, MIPS and XScale. In addition to all versions of GDB, mpDemon supports the Mentor Graphics CodeLab development suite.

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“The standard GDB remote protocol for instant plug and play, the ability to debug multiple CPUs on a scan chain, combined with Ethernet, parallel and serial interfaces between development host and embedded target, will certainly make mpDemon popular with our CodeLab customers,” said Neil Henderson, general manager for the Embedded Systems Division of Mentor Graphics. “The fact that mpDemon is modest in price is an added incentive.”

mpDemon also increases flexibility for users by being both field upgradeable and having interchangeable personality modules. Flash memory within mpDemon stores the firmware, which can be upgraded or changed if necessary. The interchangeable personality modules allow users to easily migrate from one target to another by replacing their JTAG connection cable. Other features of mpDemon include debugging from a remote location, auto-sensing voltage capabilities and LED status indicators.

“Our price-sensitive customers have been asking for a higher performance debugging solution,” said chief engineer for Macraigor Systems, Craig Haller. “mpDemon meets their needs, while maintaining compatibility for the third parties who have ported to Macraigor’s APIs.”

**Price & Availability**
mpDemon is immediately available with a list price of $1,800 USD. In addition to support from many industry-leading debuggers, Macraigor provides a free port of the GNU tools suite (GCC, GAS and GDB) and a free copy of OCD Commander, an assembly-level software debugger. Both applications are downloadable at www.macraigor.com.

**About Macraigor Systems**
Macraigor Systems is a leading supplier of BDM/JTAG connection solutions for on-chip debugging of 32- and 64-bit embedded microprocessors. Macraigor Systems’ solutions are designed for price-sensitive customers. These solutions include a suite of software tools for Windows 9x, NT, ME, XP, Linux and Solaris host systems. Macraigor Systems supports all major embedded microprocessor architectures, including AMD, ARM, ColdFire, CPU32 Series, PowerPC, MIPS and the XScale microarchitecture.

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