

**For Immediate Release  
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**Macraigor Systems announces On-Chip Debug support for Intel®  
PXA210 and PXA250 Applications Processors**

*Engineers building applications for the Intel® PXA210 and PXA250 Applications Processors can now quickly and efficiently debug their hardware and software designs.*

**INTEL DEVELOPER FORUM, San Francisco, California, February 26, 2002 –**

Macraigor Systems has ported their proprietary On-Chip Debug Technology (OCDemon™) to the Intel® PXA210 and PXA250 Applications Processors. Engineers developing applications for these new Intel® XScale™ microarchitecture based processors can now control and debug the processor and application software without the use of other system resources such as UARTs, Ethernet channels, or parallel ports. In addition to support from several industry-leading debuggers, Macraigor also supplies a free port of the popular Gnu toolkit (gcc, gas and gdb) for the Intel® XScale™ microarchitecture-based processors on their website.

Processors are becoming more sophisticated with higher bus speeds and integrated peripherals. Debugging via classic methods, such as In-Circuit Emulators and ROM monitors, does not hold up to the rigors of real-time system test and debug on these next-generation processors. As processors become more complex, on-chip debug resources have been added to aid hardware and software designers. The interface to these on-chip resources is where Macraigor Systems excels. Via a choice of communication channels, a host debugger communicates with a Macraigor Systems' device and then to the target processor. Since there is no need for any resident code, this debug method is available for hardware initialization and debug as well as Flash EEPROM programming, kernel, and application debug. Macraigor Systems offers a host based application that allows programming of Flash EEPROM via the OCD connection.

“In addition to break-through support for multimedia and industry-leading performance as well as exceptionally low power consumption, the Intel PXA210 and PXA250 Applications Processors provide an on-chip JTAG debug port to facilitate rapid hardware and software development and debug,” said Mark Casey, director of marketing for Intel’s Handheld Computing Division. “We are excited that Macraigor Systems is taking advantage of this feature to develop interface devices that give debugger suppliers access to these on-chip debug features”.

“Macraigor Systems is committed to providing hardware/software JTAG debug interface solutions for all Intel® XScale™ microarchitecture based processors,” said Managing Partner James MacGregor. “We support Intel’s launch of the Intel PXA210 and PXA250 Applications Processors and look forward to continuing this relationship in the future”.

Further information about Macraigor Systems’ products and interfaces may be found at their website, [www.macraigor.com](http://www.macraigor.com).

#### About Macraigor Systems

Macraigor Systems, LLC is a leading supplier of BDM/JTAG connection devices for on-chip debugging. Their reputation in the embedded industry has been built on the OCDemon™ product technology which provides a low-cost, full-featured connection from a PC parallel port to the on-chip debug facilities of 32 and 64-bit processors. In addition to parallel port connections, serial and high-speed Ethernet connections are available, providing host support for Windows, Linux and Solaris systems.

Macraigor Systems also provides Flash Programming software that allows in-circuit programming of target Flash EEPROM memory devices via the BDM/JTAG connection. The Flash Programmer works with a wide variety of the most popular Flash devices currently on the market.

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