In brief

Software deal

Mercury Computer Systems has signed an agreement with Waid, a leading provider of RIS/PACS solutions based in France, to provide its VisageRT volume-rendering software and GPU accelerator boards for Waid's MedSeen module, enabling advanced volume rendering allowing end users to examine medical image data interactively, and efficiently produce reports -- dramatically accelerating the diagnostic workflow.

Motor kit upgrade

SofTec Microsystems has released a new version of the system software of the AK-ST7FMC Starter Kit. The new software version supports single-, bi- and three-phase AC motors (including permanent magnet AC motors) and three-phase DC motors, in various control topologies. The kit was developed together with STMicroelectronics.

Platform for MPC5200

The IceBrain 5200 development platform has been developed by Mazet (Jena, Germany) to provide a compact communication centre for use with the Freescale MPC5200 integrated communication processor. The aspect ratio of the board corresponds with the E2Brain standard developed by Kontron. When connected with Kontron's EBC1 baseboard, the IceBrain forms an embedded platform which provides a variety of interfaces for direct connections to the required peripheral devices.

Security seminars

LynuxWorks is arranging a series of European seminars reviewing the issues involved in designing a "Secure Embedded System" from the operating system to the middleware and encryption. The seminars, which will be held December 6th in London, December 8th in Paris and December 13th in Munich,

COOPERATION

Green Hills/I-Logix team for IDE

A partnership between UML vendor I-Logix and embedded software vendor Green Hills Software, is intended to widen the role of an Integrated Development Environment to encompass not only RTOS level application code and but system level code definition, writing and debugging.

Beyond just a traditional strategic partnership under which Green Hills Software will distribute and support I-Logix's Rhapsody, is the tight source code integration of the I-Logix tools with Green Hills MULTI and AdaMULTI IDEs and its Integrity RTOS.

"Traditionally, system designers and developers have used separate environments for different aspects of development: one for requirements analysis through design, often paper-based, and another for implementation through deployment," said George LeBlanc, vice president of business development at I-Logix. "This approach is very inefficient, since the design has to be re-created in the implementation and any changes to the design or implementation must be manually reflected in the other view."

Most UML tools, said LeBlanc, generate application code from a system model to an intermediate interpretive, and often proprietary, language, and then translates that into the machine or system coding language of the application. "In the approach GHS and iLogix have taken is to translate the system model into the application code used by the RTOS, the IDE and the application."

By generating the implementation in C, C++ or Ada source code directly from the UML model, said Barnett, the model can be automatically updated to reflect any changes made to the code at the application level. The combination of Rhapsody and MULTI also helps ensure that a final product satisfies its design objectives by providing traceability between the source code and requirements.

The bidirectionality and the use of the native code of the application also allows both model and code level debugging on the host and the target, said LeBlanc, allowing developers to see in real time, what changes in the model will generate at the application code level and vice versa. "In other approaches to Model-based code generation, because the code is generated in an intermediate language which is then translated to the application language," he said, "this kind of real time back and forth interactivity is not possible."

In the MULTI/Integrity-aware version of the Rhapsody, the UML tool generates all of the source code and configuration files necessary to run a final application on Green Hills Software's royalty-free and POSIX conformant INTEGRITY RTOS. In addition, for resource-constrained and cost-sensitive devices, Green Hills Software's royalty-free velOSity microkernel is also supported.

AUTOMOTIVE

Duo cooperate on FlexRay designs

Driving a new way of doing business in silicon intellectual property, startup IPextreme has worked with Freescale Semiconductor to provide an IP version of Freescale's FlexRay automotive communications controller.

The IPextreme FRCC2100 core will allow automotive designers to add a FlexRay protocol interface to systems-on-chip, rather than buy an off-the-shelf controller chip. The IPextreme core is based on the Freescale MFR4300 controller, which implements the FlexRay 2.1 protocol.

It's all part of a "radically new concept" that involves working with semiconductor manufacturers to repackage their technology as commercial IP, said Warren Savage, IPextreme's CEO.

IPextreme works with semiconductor companies and does a "gap analysis" to determine how their internal IP can be offered as a commercial core, Savage said.

Savage said that IPextreme worked with the Freescale engineering team to package the technology for licensing as an IP core, making sure that all the needed deliverables are present and that the RTL code is tool- and technology-independent.

IPextreme will be responsible for sales, marketing and support of the core and will pay royalties to Freescale based on sales.

The FlexRay IP provided by IPextreme includes a control host interface, protocol engine and clock-domain crossing circuitry.

IPextreme also provides clock and reset control. Savage said the core is around 75,000 gates.

IPextreme is also expanding its European operations and has recruited Jens Kjelsbak to be the company's Chief Technology Officer and established a wholly owned subsidiary in Munich as its European headquarters.

Kjelsbak was General Manager of the MIPS Technologies R&D Centre in Denmark, where he managed a large team to deliver some MIPS' microprocessor designs. Previously he was the Development Centre Manager for LSI Logic Denmark. Michael Cizl, Director of the company's Munich Design Center has also been named Managing Director of the new GmbH. He joined IPextreme from Synopsys, where he was the Bluetooth R&D manager.