Sundance - *Partners from Prototype to Product!*

eNews

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Do not miss the next Shinkansen...

The new SMT150Q is in the early stage of its life with the Sundance design engineers, but the first results seem to be promising for 2007. So why not reserve it now to be sure to get your Premiere tickets?

The carrier board can host up to four Sundance modules, and it is populated with the Xilinx Virtex-4 FX60 that provides the 20 Rocket-IO Serial Links. Four lanes of the PCI express bus are directly connected to the Host PC for high-speed transfers. More than a fast communication link to the Host, the SMT150Q provides rapid inter-module communication via the Rocket-IOs. The data rates reach up to 250MB/s through the full-duplex serial links. External equipment can connect via up to four Serial ATA rear panel sockets that are also directly routed to the FPGA bridge to allow access to the PCIe carrier. Full JTAG IN/OUT connectors are present for DSP debugging purposes, and extending the processor JTAG chain to other Sundance's carriers. The SMT150Q also works in a stand-alone mode to suit embedded solutions requesting high-speed data transfer within its network of various modules.

More Details

Sundance is orbiting with the Stars!

The Massachusetts Institute of Technology Space Systems Laboratory chose the SMT375 as the main processor board for its SPHERES facility.

SPHERES is a program which operates multiple micro-satellites aboard the International Space Station. The free-floating autonomous satellites help researchers at MIT, NASA, other research institutions, and private industry to mature technologies for Distributed Satellite Systems. The satellites are used to develop metrology, control, and autonomy algorithms for tasks such as autonomous docking and satellite formation flight.

The SMT375 was chosen to replace an original C40 TIM used in the prototype. The availability of a module with new processors dramatically simplified the upgrade to the flight units. The C6701-based board more than tripled the SPHERES processing power from the prototype. The satellites are able to provide scientists a pseudo-operating system structured specifically to help them develop the algorithms. Further, with the help from Sundance the MIT SSL developed a boot-loader to reprogram the satellites while at the ISS. Depending on the tasks on hand, the satellites can be reprogrammed to perform tasks on the specific area that the scientist is investigating.

More Details

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Happy New Year 2007 from Sundance!

Newsletter Spotlight

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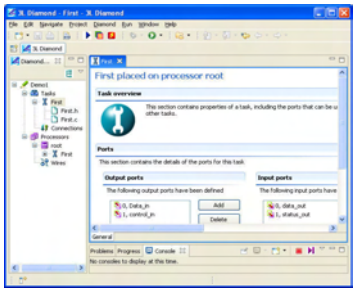
SHERES operating aboard the International Space Ship

(this picture is kindly provided by NASA)

Read about the Total Diamond Eclipse: Live in 2007



3L Diamond, Eclipse-based design tool

3L goes for the most popular open development platform to enhance its Diamond software with an Interactive Development Environment.

Eclipse is an addition to Diamond that transforms the software into a smooth and elegant design environment in which you can create, build and execute Diamond applications.

The main advantage of this new Eclipse IDE for Diamond is the automation of most of the housekeeping tasks. For instance, the configuration files are now interactively done and auto generated from selections in graphical interfaces. Creating configuration files is now a "click and play" job, rather than a tricky manual job in complex multiprocessor systems. Eclipse will make life easier for the designers using Diamond, and the Sundance's platforms of course.

More Details