Real-time testing solution handles rapid control prototyping

MathWorks today announced the availability of xPC Target Turnkey, a fully assembled, real-time testing solution for rapid control prototyping and hardware-in-the-loop (HIL) simulation using Simulink. xPC Target Turnkey combines xPC Target from MathWorks with real-time target machines and I/O modules provided by Speedgoat GmbH to form a complete real-time testing solution.

Configuring a real-time test system involves the time-consuming and resource-intensive process of evaluating software platforms, hardware technologies and options, and project requirements. xPC Target Turnkey is optimized for Simulink and xPC Target, enabling engineers to use a customized Speedgoat target machine to interactively design, prototype, and test Simulink models in real time with hardware. Each real-time target machine is assembled based on the project specific performance, I/O connectivity, and environmental requirements.

“In our experience, this combination of Simulink tools and a Speedgoat real-time target machine promotes rapid design iteration and significantly reduced the time we spent on controls concept development, machine testing, and data analysis,” said Corey Quinnell, systems engineer at INCOVA Technologies, a manufacturer of hydraulic controls and subsidiary of HUSCO International.“Our task was to design and implement an intelligent valve control system for large hydraulic machinery and, with the xPC Target Turnkey solution, we were able to drop our development time by 50% and complete design modifications in an hour.”

“Engineers need the capability to test their designs with hardware,” said Michael Vetsch, CEO at Speedgoat GmbH. “A high-performance real-time testing environment that connects Simulink and Stateflow models to physical systems is a powerful technique to execute those tests, and verify that the design works as intended. We are excited to partner with MathWorks, offering our fully assembled, real-time target machines to meet varying levels of performance and environmental requirements.”

“Engineers today must anticipate real-world scenarios, test against a growing list of requirements, and quickly incorporate changes to reduce overall development time and costs. Key to this is the ability to work with an integrated real-time testing environment,” said Brett Murphy, technical marketing manager for verification, validation, and test, MathWorks. “xPC Target Turnkey allows engineers to focus on their design goals instead of hardware specifications and offers wide-ranging connectivity and performance in a turnkey solution that spans both hardware and software.”

About Speedgoat

Speedgoat is a highly specialized provider of real-time target machines and I/O modules made for Simulink and xPC Target-based rapid control prototyping and hardware-in-the-loop simulation. With its solutions Speedgoat serves engineers from a broad range of industries worldwide.

For additional information, visit www.speedgoat.ch [1]

About MathWorks

MathWorks is the leading developer of mathematical computing software. MATLAB, the language of technical computing, is a programming environment for algorithm development, data analysis, visualization, and numeric computation. Simulink is a graphical environment for simulation and Model-Based Design of multidomain dynamic and embedded systems. Engineers and scientists worldwide rely on these product families to accelerate the pace of discovery, innovation, and development in automotive, aerospace, electronics, financial services, biotech-pharmaceutical, and other industries. MathWorks products are also fundamental teaching and research tools in the world's universities and learning institutions. Founded in 1984, MathWorks employs more than 2200 people in 15 countries, with headquarters in Natick, Massachusetts, USA.

For additional information, visit www.mathworks.com [2].

Source URL (retrieved on *06/19/2013 - 2:16am*):
http://www.ecnmag.com/products/2010/08/real-time-testing-solution-handles-rapid-control-prototyping

Links:
[1] http://www.speedgoat.ch
[2] http://www.mathworks.com