

October 24, 2007

The NASA Goddard Space Flight Center Wins the FLC Mid-Atlantic Region Technology Transfer Award for SpaceWire Link-and-Switch Implementation.

The Mid-Atlantic Region of the Federal Laboratory Consortium this year presented the Regional Excellence in Technology Transfer Honorable Mention Award to Mr. Glenn Rakow, Mr. Omar Haddad, and Mr. Locksley Haynes of the NASA Goddard Space Flight Center for work entitled "SpaceWire Link-and-Switch Implementation."

NASA Goddard Space Flight Center's SpaceWire link-and-switch is a local-area-network router implementation of the SpaceWire protocol that is specifically targeted to embedded low-power avionics applications requiring high reliability. The router enables high- and low-rate communication between avionics components. This significant advancement helps reduce the complexity of communication for satellite architecture applications and other space-flight systems while improving speed and reliability. Between 2006 and 2007, Goddard researchers and technology transfer personnel worked with four major U.S. aerospace companies to form Space Act Agreements (SAAs) that would enable them to integrate Goddard's router design into their existing and in-development products. One of the most significant of these efforts is an agreement with BAE Systems, providing the springboard for a new application-specific integrated circuit (ASIC) design for Goddard's router technology. By integrating the SpaceWire router functionality into BAE's computer board design, BAE's completed ASIC will benefit future NASA missions as well as other aerospace organizations by lowering the cost, required power, and number of parts needed to integrate the technology's functionality into space-based computer systems. In addition, NASA and other organizations will be able to purchase the SpaceWire ASIC at a much lower cost than would be required to develop it in house. The collaborative effort also has the potential to positively impact future NASA missions as well as the U.S. private aerospace industry by helping to further widespread use and acceptance of the international SpaceWire standard. Widespread acceptance of the SpaceWire protocol may enable more aerospace missions at lower cost, as aerospace organizations worldwide will be able to reuse components and avionics systems from one mission to the next rather than customizing avionics applications for each new mission. In turn, more exploration – and therefore more discovery – may be possible.

One of the most coveted awards in the field of technology transfer, FLC awards for Excellence in Technology Transfer recognize laboratory employees who have accomplished outstanding work in the process of transferring Federally-developed technology to the marketplace. The award was made on September 21 at the region's annual meeting.

The Federal Laboratory Consortium is comprised of the technology transfer offices of all of the Federal laboratories throughout the country while its Mid-Atlantic Region focuses on the 70 Federal laboratories in DC, DE, MD, PA, VA and WV.

For more information contact: Federal Laboratory Consortium, Mid-Atlantic Region Support Office, Phone: 407-947-6443, Fax: 812-256-4492, e-mail: jeichelberger@pendulumsite.com, www.flcmidatlantic.org