

# NEWS RELEASE

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**ADI** APPLIED DYNAMICS  
INTERNATIONAL

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## Applied Dynamics International Launches Affordable, High Performance rtX-DX

Ann Arbor, Mich., March 4, 2004 – The latest simulation technology from Applied Dynamics International (ADI) offers automotive, aerospace, and defense engineers an affordable, high-performance solution for the development and test of embedded control systems.

“The rtX-DX demonstrates that standard, PC-based, open architecture technology can meet the needs of extremely demanding hardware-in-the-loop (HIL) development and test projects. Many of the multi-controller development and test projects, being carried out by our customers, use highly complex real-time simulation models. The rtX-DX dual-Intel Xeon architecture provides the computational power required at an affordable price.” said John McIntosh, CEO of ADI.

The new rtX-DX real-time simulator uses dual-Xeon server technology to provide incredibly high performance real-time simulation, on a standard PC-based platform. The rtX-DX takes advantage of SIMsystem symmetric multi-processing and a dual-CPU platform to effectively double the computational power of the rtX simulator. Communication between the CPUs is tightly coupled through the system bus providing 34.4 Gbit/s (4.3GB.s) bandwidth between the two processors, significantly faster than the 1.25Gbit/s link claimed by dSPACE to parallelize the DS1006 processor boards. Simulation computation benefits greatly from 64-bit floating point computation and Intel’s Hyper-Threading technology.

Common automotive HIL simulations require frame times of 1ms or less. The rtX-DX can be used to run a full vehicle dynamics model (ex: CarSim-RT by Mechanical Simulation Corporation) on one CPU, an 8-cylinder powertrain model on the second CPU with a frame time of less than 0.1ms. This high computational performance

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capability allows for the use of very high-fidelity real-time models. Higher fidelity equates to improved accuracy and ultimately results in the development of better embedded control systems.

By designing the rtX real-time simulator platform using standard, commercially available PC technology, rtX simulators are able to take advantage of the fast-paced evolution of this technology to provide an affordable, high performance hardware-in-the-loop solution. Commercially available, low-cost PCI I/O boards are added to the rtX to provide the necessary real-time I/O capability in a cost-effective manner.

To continue utilizing the benefits of PC-based technology for real-time simulation, ADI is scheduled to release a Dual AMD Opteron-based rtX and a four CPU Xeon rtX later this year.

Through strategic partnerships and use of “best available” commercial technologies, ADI continues to position itself as the preferred solution for embedded electronic systems development and test.

A pioneer in the development, manufacture, and use of simulation and control system technology for more than 40 years, Applied Dynamics International design engineering products are used in leading real-time simulation laboratories around the world. Applied Dynamics International is a supplier of advanced embedded hardware and software development tools for the aviation, aerospace, automotive, defense, electronics and other related industries. Headquartered in Ann Arbor, MI, Applied Dynamics International also has offices in the United Kingdom, installations in 23 countries and representatives throughout the world.

For more information, visit ADI's website at: [www.adi.com](http://www.adi.com) .

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