NI HIL and Real-Time Testing Platform

High-Quality Solutions That Lower the Cost of Test System Development and Ownership

ni.com/hil

National Instruments has provided tens of thousands of real-time test and control solutions in the last decade including solutions for model-in-the-loop (MIL), software-in-the-loop (SIL), and hardware-in-the-loop (HIL) test systems. In addition to offering testing solutions for controls development, the NI platform can be applied further down the development cycle to dynamometer, wind-tunnel, and ultimately end-of-line production testing, providing reuse and correlation of tests throughout the development process. With open technologies that can scale from low-cost PC-based real-time test stands to multichassis, systems integration test, the NI platform helps to reduce the time, cost, and risk in your product development.

Open Hardware and Software Platform pxisa.org

- Hardware platform based on the open, multivendor standards of PCI/PCI Express and PXI/PXI Express
- Open software platform that can be easily extended by your or more than 500 certified integration partner companies, ensuring that you can adapt your system to your needs without waiting on vendor roadmaps
- Support for a variety of third-party modeling environments as well as C/C++ code on real-time execution targets

Greatest Variety, Value, and Availability of Commercial Off-the-Shelf Products ni.com/products

- National Instruments provides measurement and automation tools to all engineering markets, making it possible for NI to offer the largest variety of high-quality products at the greatest value
- Due to economies of scale in production and a global presence, NI is able to deliver products faster (typically <1 week delivery)
- A 16 percent investment in R&D each year helps NI offer more new products using the latest advances in technology than any NI competitors

Easily Integrated FPGA I/O and Processing Platforms ni.com/fpga_technology

- Create custom hardware faster using graphical LabVIEW FPGA programming or integrate existing VHDL and Verilog IP
- Design flexible I/O systems capable of adapting to changing requirements

Leading-Edge Multicore Technology ni.com/multicore

- Efficiently harness the latest processor technology in your applications with the help of a multicore software technology leader working closely with microprocessor manufactures
- Distribute test system tasks across cores manually or automatically
- Easily deploy model(s) to multiple cores with the ability to specify model execution core assignment, rate, and dependencies

Global Services, Support, and Partner Expertise ni.com/support

- More than 40 branch offices providing local support and services
- More than 500 certified integration partner companies
- Instructor-led or self-paced training offered at local training centers, on-site, and via Web