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NI LabVIEW Embedded Design Platform Now Available for Analog Devices Blackfin Processors

LabVIEW Empowers Domain Experts with Graphical Design Tools for Embedded Development

NEWS RELEASE – Embedded Systems Conference – April 4, 2006 – Analog Devices Inc. and National Instruments today released the [NI LabVIEW Embedded Module for ADI Blackfin Processors](#), which extends the LabVIEW graphical dataflow development environment to directly target high-performance, low-power Blackfin Processors for faster embedded system development. With a single graphical development platform, ADI and NI deliver an out-of-the-box, integrated solution for solving real-world problems, empowering domain experts without embedded programming experience to overcome the traditional challenges of embedded development and deliver sophisticated applications quickly.

“Using NI LabVIEW Embedded technology, we have one tool to take the system model to hardware-in-the-loop for testing and prototyping all the way to the chip,” said Erik Goethert, a design engineer at Boston Engineering. “This means we spend less time learning the details and syntax of traditional low-level tools and more time improving our designs.”

With the LabVIEW Embedded Module for Blackfin Processors, domain experts can develop their applications from algorithm design and prototyping to deployment and test – all using one platform. The graphical software includes more than 140 Blackfin-specific, hand-optimized math, analysis and signal processing functions; integrated I/O such as audio and video DACs, ADCs and CODECs; and on-chip debugging, as well as easy graphical interconnection via Ethernet. The LabVIEW Embedded Module for Blackfin Processors includes the fully featured and accessible ADI VisualDSP++ C development and debugging environment for low-level access and real-time, interactive debugging and deployment directly to Blackfin. Engineers and scientists can debug code graphically in LabVIEW or simultaneously debug both the graphical code and generated C source code. The new module is shipped with examples for applications including audio, control, power monitoring and communications. It also provides easy connectivity to the extensive range of NI test and measurement hardware for deploying external simulation and test methodologies early in the development process.

Industry and academic leaders are adopting the LabVIEW Embedded Module for Blackfin Processors to streamline embedded system development. For instance, engineers at Boston Engineering are using the LabVIEW Embedded Module for Blackfin Processors to develop complex embedded control systems such as digital film printing kiosks. To address rapid time-to-market needs and constantly changing system requirements, they integrated standard design and simulation tools with real-world data in LabVIEW to optimize their designs. They rapidly prototyped the system on the [NI CompactRIO](#) platform and then migrated it to a custom Blackfin Processor-based system to lower cost and size. In addition, an assistant professor at the University of Massachusetts Lowell has implemented an undergraduate course in robotics and controls based entirely on the LabVIEW Embedded Module for Blackfin Processors and ADI Blackfin Handy Board, a custom, handheld robotics control board. The combination of intuitive graphical programming and flexible Blackfin processors has helped Dr. Fred Martin create a productive learning environment.

“LabVIEW Embedded technology makes robotics programming accessible to people who would not otherwise be able to create embedded systems. It gives users an alternative to programming in C,” said Dr. Martin. “The LabVIEW graphical programming model is especially powerful for signal flow and signal processing applications and is much better than textual languages, especially for embedded design.”

For more information about the LabVIEW Embedded Module for Blackfin Processors, including an online evaluation, Web tutorials and data sheets, readers can visit www.ni.com/labview/blackfin or www.analog.com/blackfinlabview.

About LabVIEW for Graphical System Design

The [LabVIEW embedded design and prototyping platform](#) combines the [LabVIEW graphical development environment](#) with off-the-shelf measurement and control hardware for design, simulation, rapid prototyping, implementation, validation and verification of embedded systems. Intuitive graphical dataflow programming empowers engineers and scientists to rapidly develop and iterate on designs, reducing the time from concept to prototype. Using LabVIEW with tightly integrated [NI PXI](#) or [CompactRIO](#) hardware further reduces time to market by eliminating the need for costly integration steps such as board bring-up. After prototyping, domain experts can deploy custom designs to an extensive range of off-the-shelf NI hardware as well as custom hardware using components such as the Analog Devices Blackfin Processor.

About Analog Devices

Innovation, performance and excellence are the cultural pillars on which Analog Devices has built one of the longest standing, highest growth companies within the technology sector. Acknowledged industry-wide as the world leader in data conversion and signal conditioning technology, Analog Devices serves more than 60,000 customers, representing virtually all types of electronic equipment. Celebrating 40 years as a leading global manufacturer of high-performance integrated circuits used in analog and digital signal processing applications, Analog Devices is headquartered in Norwood, Mass., with design and manufacturing facilities throughout the world. Analog Devices' common stock is listed on the New York Stock Exchange under the ticker "ADI" and is included in the S&P 500 Index.

About National Instruments

For 30 years, National Instruments (www.ni.com) has been a technology pioneer and leader in [virtual instrumentation](#) – a revolutionary concept that has changed the way engineers and scientists in industry, government and academia approach measurement and automation. Leveraging PCs and commercial technologies, virtual instrumentation increases productivity and lowers costs for test, control and design applications through easy-to-integrate software, such as NI LabVIEW, and modular measurement and control hardware for PXI, PCI, PCI Express, USB and Ethernet. Headquartered in Austin, Texas, NI has more than 3,800 employees and direct operations in nearly 40 countries. For the past seven years, *FORTUNE* magazine has named NI one of the 100 best companies to work for in America.

Pricing and Contact Information

NI LabVIEW Embedded Module for ADI Blackfin Processors	Contact Sales: ni.com/contact
Web: www.ni.com/embedded	E-mail: info@ni.com

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