Maxon motor Collaborates with National Instruments (NI) to simplify Advanced Motion Control

Integration of NI LabVIEW graphical programming tools and maxon EPOS2 drives deliver seamless motion control for medical devices, robotics and industrial applications

maxon motor, today announced its collaboration with National Instruments (NI), a leader in industrial measurement and control, to integrate NI LabVIEW graphical system design software tools with maxon EPOS2 positioning controllers.

The collaboration has produced a seamless integration of maxon motor high-precision drive technology and the LabVIEW NI SoftMotion Module to simplify the implementation of precise motion control tasks in many industries.

The LabVIEW NI SoftMotion Module delivers graphical development for custom motion control applications. High-level application programming interfaces (APIs) and customisable motion IP help customers to implement powerful applications and deploy them to embedded hardware platforms such as NI CompactRIO, NI PXI modular instrumentation, or the NI Industrial Controller. The software flexibility makes it now possible for customers and partners to use NI SoftMotion with third-party hardware from leading manufacturers like maxon motor.

To provide engineers and scientist with a commercial off-the-shelf (COTS) motion control solution. National instruments and maxon motor collaborated to provide seamless integration between NI SoftMotion and the second generation of the maxon Easy to use POsitioning System (EPOS2).

"NI and maxon have worked together to integrate the high productivity of NI LabVIEW graphical software and the high-precision drive systems of maxon motor to help simplifying complex engineering jobs" Nate Holmes, Product Marketing Manager at National Instruments. "With this integration, engineers and scientists now can focus more on actual innovation because they don't have to assume the entire integration workload."

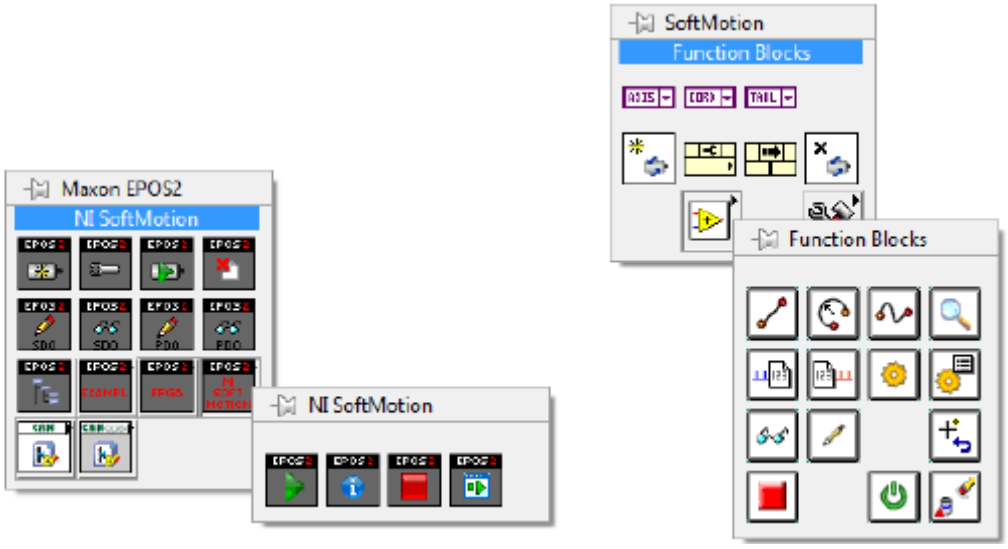
Because of its ease of use, LabVIEW NI SoftMotion, combined with the maxon EPOS2 drive technology is ideal for engineers who have high precision requirements or face tight time-to-market restrictions and must only spend a minimal amount of time configuring and setting up their system.

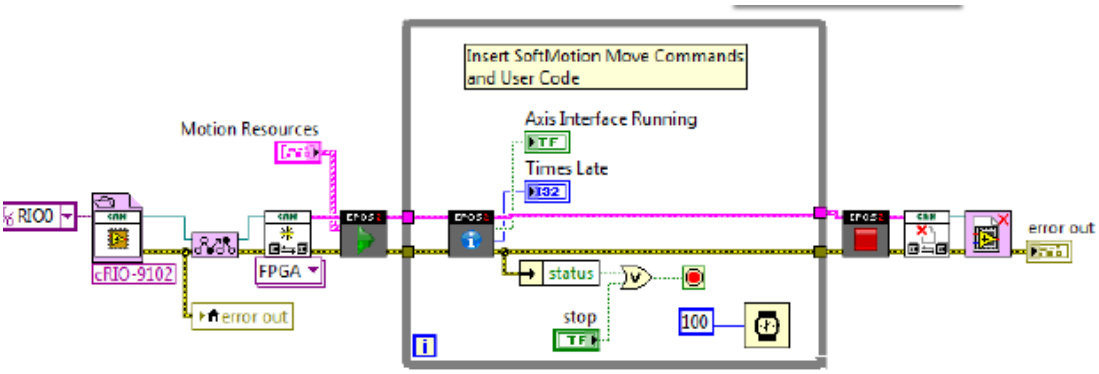
Patrik Gnos, Motion Control Product Manager at maxon motor added, "Our customers will be impressed by the high standard of quality and innovation of this collaboration between NI and maxon. We can finally provide an intuitive and complete system solution for any drive application. All drive components fit seamlessly together, including application software, positioning controller, encoder, motor and even a gear where necessary."

CompactRIO Library for EPOS2 Positioning Controller - maxon motor

VIs, Examples of NI SoftMotion and EPOS CANopen Drives.

- NI SoftMotion Axis Interface: High level VIs for interfacing EPOS2 drives via the SoftMotion API.
- maxon EPOS2 Interface: High level VIs simplifying the control EPOS2 drives via the EPOS2 API.
- CANopen Interface: Love level VI's simplifying the generation of SDOs and PDOs.





This driver is meant to provide a reusable architecture and set of VIs for communicating to the maxon motor EPOS2 drives positioning controller over a CANopen interface. maxon EPOS2 is a modular designed digital positioning controller. It is suitable for permanent magnet-activated brushed DC motors and electronically commutated brushless DC motors (BLDC) with incremental encoder with a power range from 1-700 watts. This driver includes an example of interfacing maxon EPOS2 positioning controller with NI SoftMotion, allowing for multi-axis coordinated motion. NI SoftMotion Axis configuration is handled through the LabVIEW project. An example LabVIEW project with correct axis settings is available. The hardware layer in this driver was written to specifically tie in with the NI-9853 C-series module. The driver was written to permit replacement of the hardware layer to be compatible with other NI or 3rd party CAN controllers. This driver is configured to run on a NI CompactRIO 9102 an NI 9853 module. If you have a different RIO device, select the appropriate target specific bitfile or current cRIO backplane. LabVIEW 2010 bitfiles for all backplanes are available.

System Requirements Application software: NI LabVIEW 2010 Toolkits and Add-Ons: LabVIEW Real-Time 2010, LabVIEW SoftMotion Premium 2010 (required only for NI SoftMotion Examples). Hardware Group: CompactRIO

Overview Tab - Support Information For technical support, contact maxon motor at: http://support.maxonmotor.com