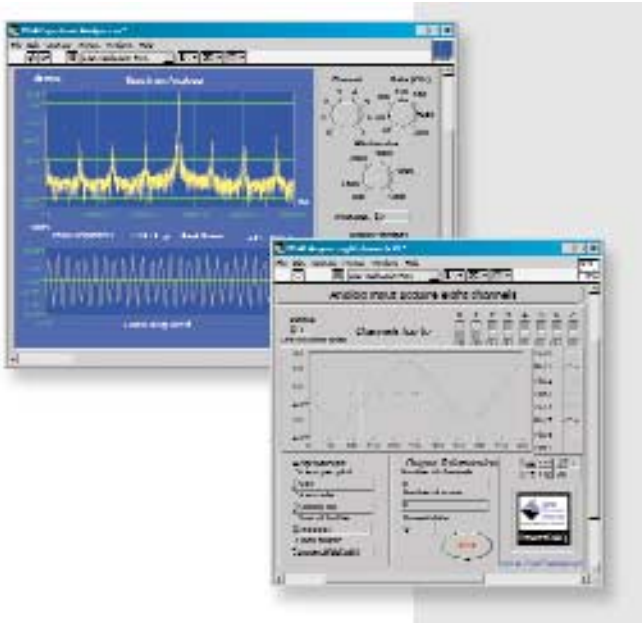


PowerDAQ for LabVIEW



Features

- Integrates with LabVIEW 5.x and 6.x for Windows 9x/Me/NT/2000/XP, provides multithread support
- Replace any VIs using NI data-acq boards to use PowerDAQ boards in minutes
- Stream-to-disk at full speed using any PowerDAQ board—users call the required PowerDAQ functions within LabVIEW
- Use PowerDAQ and NI boards in the same PC
- Driver written using standard LabVIEW calls
- Includes extensive PowerDAQ example VIs for analog input, analog output, digital input, digital output
- Complete support for three 16-bit timer/counters including conversion VIs.
- Thermocouple VIs for use with PD-TCR
- Simultaneous AI, AOut, DI, DOut, Counter/Timer VI
- SCXU support (via communication port VIs)

General Description

The LabVIEW VI Library for PowerDAQ is a collection of VIs—bundled with the hardware at no charge—that give programmers working in LabVIEW the ability to access all the power of PowerDAQ II family boards. The library consists of two distinct subsets:

- Low-level compatibility VIs—use these VIs to convert an existing application based on National Instruments' hardware to work with PowerDAQ hardware. These replacement VIs are so compatible with the originals that making a substitution typically involves only a few mouse clicks and takes just a few seconds.
- High-level example VIs—PowerDAQ hardware contains features you won't find elsewhere, so we created these ready-to-run VIs to access all these powerful capabilities. They take full advantage of highest throughput rates possible with PowerDAQ boards. Some of these VIs are so sophisticated they can serve as prewritten applications for many tasks!

The PowerDAQ LabVIEW driver includes an extensive set of examples, which you can use as a starting point to build your own application. The installation divides all example VIs into six categories depending on their functionality: Analog Input, Analog Output, Digital I/O, Counter/Timer, Multiple Subsystem and Multiple Boards.

Most of the examples are simple programs that perform only one specific task or highlight a feature of the specific subsystem. You can easily combine them to provide more functionality or use more complex examples to start a design.

High-level Example VIs

LabVIEW VIs for PowerDAQ are ready-to-run examples showing the feature-rich combination of using LabVIEW and PowerDAQ. The PowerDAQ VIs library is multithreaded, allowing you to run simultaneous analog input, analog output, digital in, digital out and counter/timer operations.

Advanced Streaming to Disk

PowerDAQ advanced stream-to-disk functionality is interfaced into LabVIEW using the Stream to Disk example VIs. These VIs do not use LabVIEW's internal streaming VIs but call the PowerDAQ VIs that interface to the driver's advance buffering scheme to achieve the highest streaming rates possible.

Multi-Board Support

Multi-board PowerDAQ support is available using our Multi-Board VI examples. All PowerDAQ boards can be synchronized using an internal connector and the synchronization cable to clock all boards simultaneously.

Client/Server/Internet Support

The PowerDAQ VIs support LabVIEW's client/server and Internet functionality. This allows you to remotely monitor PowerDAQ boards using LabVIEW.

Multiprocessor Support (SMP)

For CPU/graphic-intensive applications using LabVIEW, the LabVIEW for PowerDAQ driver supports multiple Pentium processors. This allows you to distribute processing and enhance the performance of your applications.