WinDaq Software and the DI-720 Tackle Life Sciences Research

DATAQ Instruments

Medical research applications can be very demanding on PC-based instrumentation. The problem is the range and quantity of the signals measured. Consider those of a typical cardiovascular application:

- Left ventricular pressure
- Arterial pressure
- Aortic blood flow
- Electrocardiogram

Taken individually, any one of these signals does not present a particular challenge. But acquired as a group they will place tremendous demands on the software used to acquire, display, and record the information. Consider these typical requirements:

- A zero-delay real time display, directly on your PC's screen, of all channels that is as smooth and continuous as an expensive patient monitor
- Real time scaling in calibrated units
- A simultaneous stream-to-disk function that does not inhibit the real time display in any way
- Screen manipulation utilities that allow you to scale the real time display in both ampli tude and time without display interruption
- Real time event marking with time-and-date and comment information
- Multitasking capability that allows you to review data already stored to a file, while you continue to record to the same file at the same time

WinDaq software is designed specifically for these requirements. In fact, the software easily supports these signals acquired from large and even small animals where sample rates can increase by a factor of five or better. Since WinDaq software, in tandem with DI-720 hardware, is capable of a real time display and stream-to-disk rates as high as 200,000 samples per second, there are few (if any) applications in medical research that this system cannot handle. Examples of higher speed signals acquired every day by researchers with WinDaq systems include multi-channel EMG (needle and surface), ECG, evoked responses, HIS bundle activity, and even voice recordings for speech pathology.

Simply stated, if you're not using a WinDaq system to acquire your life sciences data, your PC-based instrument is more of a problem than a solution. No other PC-based alternative compares to WinDaq's speed, ease-of-use, and flexibility.