



The High-Performance Alternative

DAQ [definition and history]

DAQ is an abbreviation for Data AcQuisition. Though there have been a variety of different abbreviations used over the years (e.g. DAS, DAC, DataAcq, etc), the three letters D-A-Q truly have risen to the level of a universally accepted synonym for its much longer brother.

Usage of the term DAQ has expanded to include much more than purely analog input. It is now used to describe an extremely wide variety of system tasks including analog input, analog output, digital input and output, counter/timer and motion monitoring. Almost all of these DAQ systems have the common thread of being PC based, though the term is also sometimes used in conjunction with other computer platforms including VME and PXI.

These systems can be based upon any computer interface though the most popular systems today are based on Ethernet, PCI and USB. UEI's PowerDAQ board level product line offers a wide variety of plug-in board interfaces for PCI and PXI bus computers. Included in the line are the industry's widest selection of simultaneously sampling PCI and PXI A/D boards as well as the highest density analog output boards with up to 96 D/A channels per PCI board. UEI's popular PowerDNA product line is Ethernet based, and offers up to 150 channels of 24-bit analog input in an extremely rugged 4" by 4" by 6" cube.

Though DAQ is generally considered a hardware product, software is always a key part of the puzzle. UEI's Framework offers the industries widest assortment of factory written and supported drivers including support for Windows, Linux, RTX, QNX, Linux/RT as well as LabVIEW, MATLAB and DASyLab.

It is difficult to say exactly when the abbreviation DAQ first was used, though the data acquisition function is not new and easily predates the release of the personal computer. Though difficult to say for certain, there are certainly some who believe the first DAQ board was designed to install in the early Digital Equipment Corp's PDP-8 computer. However, there may have been even earlier products that have been long since forgotten by most. While the internet and PC have done an incredible job archiving products released in the past 15 -20 years, product information prior to that was almost exclusively provide in catalog or data sheet form, and it's difficult to research these early products.

Regardless of the history, it certainly appears that DAQ technology is here to stay. How the term's usage will change in the next 20 years is anyone's guess, and only time will tell for sure.