VxiDAQ

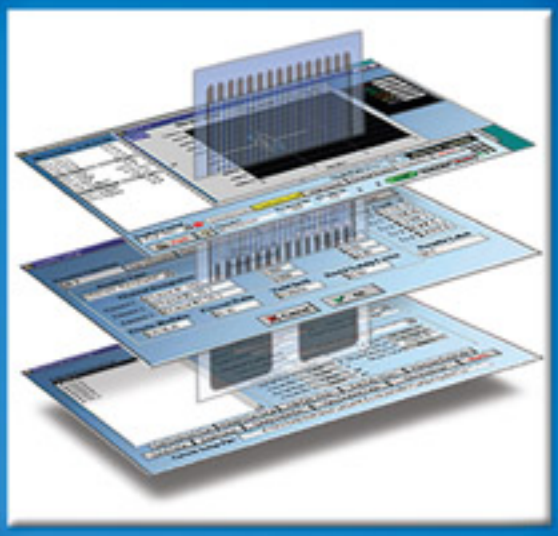
Measurement Software
for the VXI platform

Designed for Structural Testing
- Measure Strain / Temperature / Displacement

High Channel Count Architecture
- Accommodates 512 channels (more upon request)

Programmable Features
- Bridge Configuration (quarter, half, or full)
- Bridge Completion (120, 350, or user-installed)
- Filtering (2, 10, 100 Hz double pole low pass)
- Voltage Range (0.0625, 0.25, 1, 4, 16, AUTO)

Calibration Features
- On-Board Source
- Internal Shunt or User-Installed External Resistors



"A complete solution for test engineers, whether executing product performance verification or fatigue testing."

Digital Input / Output

Simple, Intuitive Setup Screens with Extensive Options for Rosettes

Multiple Plot, Display and Real-Time Data Reduction Features

Remote Viewer for Immediate Posting of Data to Internet or Intranet

VxiDAQ is the extensive data acquisition software that unites the reliability of VXI Technology's measurement instrumentation to provide a complete and powerful acquisition / reporting solution. Featured are the key essentials for the accurate processing of signal variables used in structural testing such as strain gages, load cells, thermocouples, string-pots and LVDT's.

VxiDAQ's comprehensive design includes an effortless user interface with extreme data application flexibility. The on-screen menus offer quick channel configuration, setup of new, or instant recall of previous test setups. Along with the standard continuous and discrete scanning methods, there are optional logging features including event-driven mode logging, pre/post trigger data capture, and remote triggering capabilities. Additional options include alarm limits per channel, multiple calibration routines, variable scan rates, and multi-page display.

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VXI Technology

- **Real-Time Calculated (Virtual) Channels Available to Perform:**
  - Mathematical Manipulations
  - Conditional Functions
  - Stress Calculations
  - Channel Averaging

- **Rosette Setups**
  - Single, Biaxial (Tee), and Triaxial (Rectangular / Delta)
  - Define SG Rosette Parameters (GF, Kt, and Temp. Coefficients)

- **User-Defined Channel Display Lists to Allow for Monitoring:**
  - Engineering Units
  - Actual Voltage
  - Current Offset
  - Current Gain
  - Current Excitation Voltage

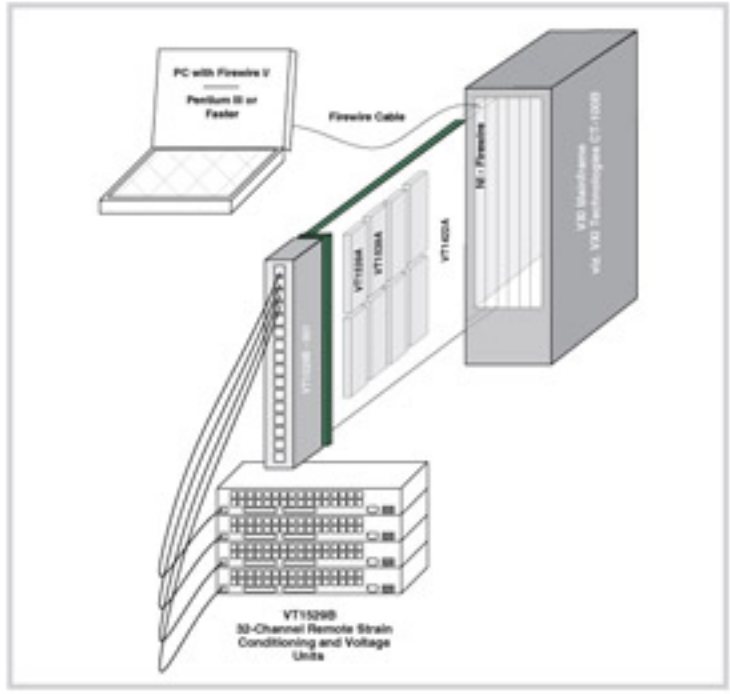
VxiDAQ software is a ready-to-run, comprehensive program designed to insure efficient channel setup, precise measurement, useful real-time graphics, accurate reporting, and graphic rendering of results. Acquisition of a large grouping of strain gage signals can begin in a matter of only a few minutes! Using simple to follow menu-driven instructions, hardware and channel setups, scanning data, archiving, and reducing data are all quick and easy.

The VxiDAQ system automatically corrects for Wheatstone bridge nonlinearity, transverse sensitivity (when applicable), and calculates temperature induced apparent strain values. In addition, by using the calculated channel option, the acquired strain values for single, biaxial (Tee), and triaxial (Rectangular and Delta) rosettes can be reduced to principal stresses stress orientation (Phi), and equivalent stresses (von Mises failure criteria). The data reduction can be performed in "real time" or in the post-processing utility.

VxiDAQ's powerful and flexible architecture is designed to take full advantage of the versatility of VXI Technology's, VXI based systems.

A sample VxiDAQ system configuration (see Illustration below), consists of (1) VT1422A controlling VXI card, (2) VT1539A SCPs and (4) 32:1 strain signal conditioning VT1529B muxes. A 6 slot VXI card-cage is coupled to a laptop PC by the VT-1394 Firewire interface card. Each VT1539A SCP controls two of VT1529B's with a single cat-5 cable and RJ-45 connectors to a Terminal Assembly. The result is a 128-channel test measurement system that is easy to setup and operate, with extremely comprehensive features and performance.

System configurations such as this have been developed for use in Structural Test Labs where typically a large number of signal variables are to be measured. With VxiDAQ and the VT1529B, Test Engineer's can accurately measure essential signal variables without the need for any additional SCP's or software.



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