

APPLICATION BRIEF

2020

320 CHANNEL DATA ACQUISITION SYSTEM

Brief Description:

Emerging Technologies, LLC. was called upon to develop a 320-channel data acquisition system for an accelerated life cycle test system. The customer-provided specifications called for an accurate, noise immune, easy to configure system. Additionally, the system needed to support the future addition of more channels.

The system is monitored daily to catch product concern conditions as they occur. The 320 channels are used to support ever changing smaller groups of product under test. Test groups can start and/or finish on a daily basis.

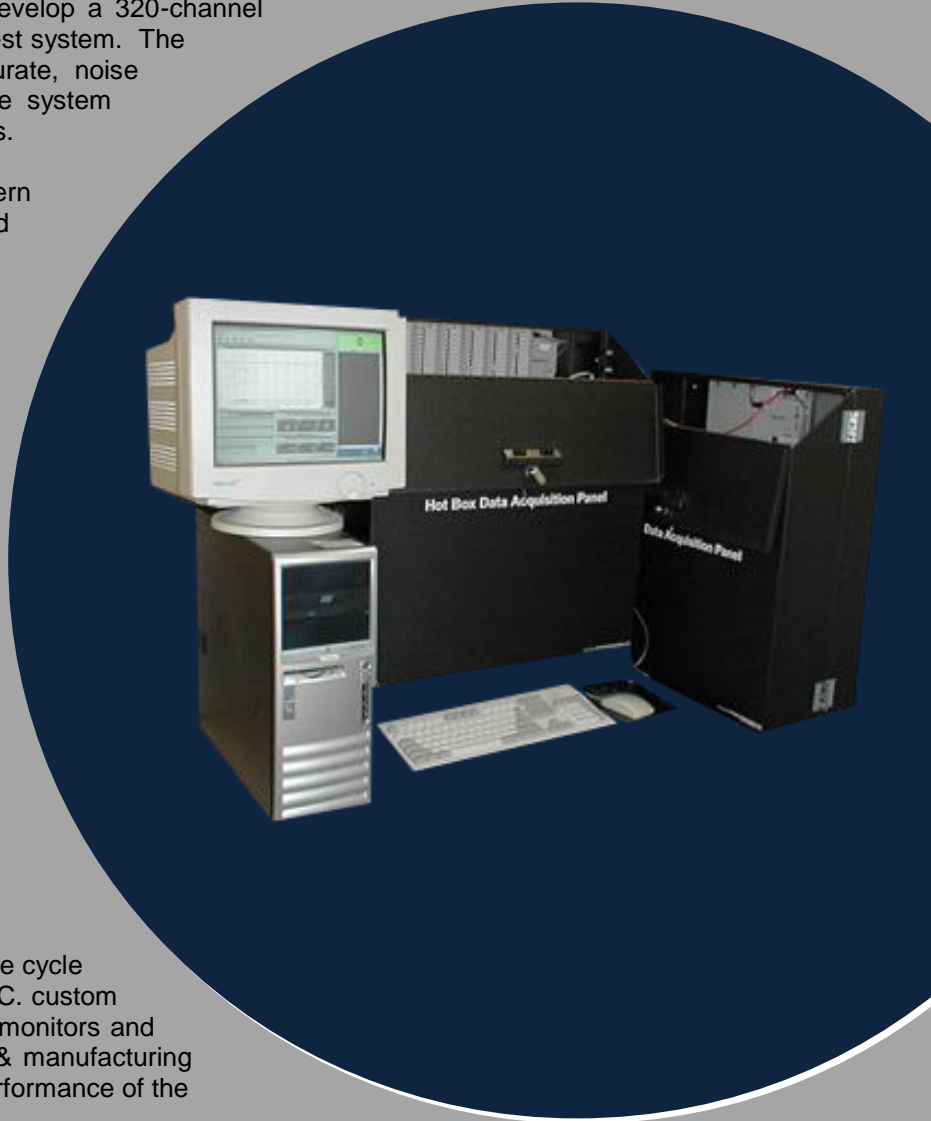
The hardware design includes networked data acquisition modules, a computer system and customer provided sensors.

The software design includes configurable data acquisition and graphical display programs as well as custom developed alarming application software.

Emerging Technologies, LLC. prepared a design package for customer review prior to fabrication of the system. The design package included: System Layout Diagram, Schematic Diagrams, and Screen Layout. Once approved by the customer, the system was fabricated and tested, followed by on-site installation and commissioning.

Customer Benefit:

The customer is able to monitor and log accelerated life cycle product testing, using the Emerging Technologies, LLC. custom data acquisition system. The new system accurately monitors and records product testing allowing the product design & manufacturing groups as well as key customers a window into the performance of the product.



ET Responsibilities:

- Functional Specification Generation
- ✓ Design / Engineering
- ✓ Fabrication
- ✓ Programming – Software
- Programming – Firmware
- Circuit & PCB Design
- ✓ On-Site Commissioning
- ✓ Post Commissioning Support
- Other

Technologies:

- Embedded Computers
- Microcontrollers
- ✓ Visual Software
- Control Software
- ✓ Data Acquisition
- Computer Based Control
- ✓ Communications – enet
- System Integration
- Other

Special Features:

- ✓ Active alarm count tracking with indication.
- ✓ Remote browser capability.
- ✓ Network logging capability.
- ✓ Event driven email-messaging capability.
- ✓ Event or time reporting capability.
- ✓ User config. tag name, range, & alarm point capability
- ✓ User config. graphic interface for trending & gauging.
- ✓ Robust accurate and noise immune analog inputs.