

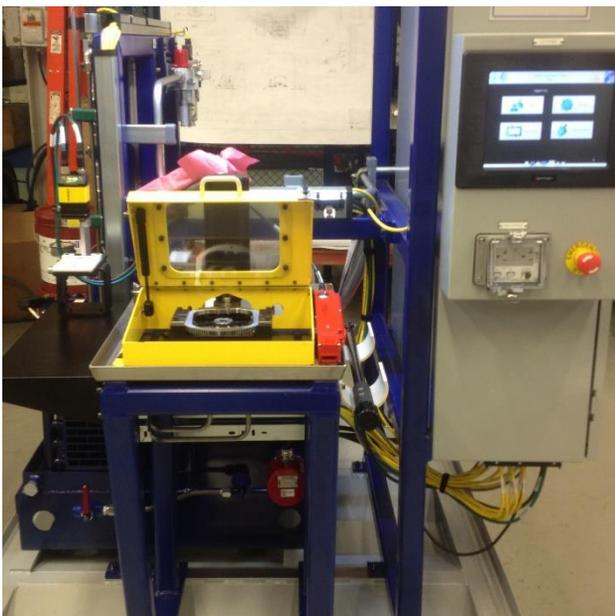
Signal.X
TECHNOLOGIES LLC

We are a nimble organization with years of experience deploying software products and engineering services in the most demanding production and laboratory environments.

Project Spotlight: STAX Leak Tester

Objective:

Create an audit leak test stand solution to control and measure oil leak rates on automotive engine components. Deploy stand in high-volume production environment while maintaining required lab-level accuracy.



Solution Benefits:

- STAX software offers automation, signal acquisition, and pass/fail limit definition in a single intuitive software application.
- Solution utilizes high-performance NI cRIO hardware chassis for flexible and high-speed signal acquisition.
- End user defines and edits the sequence and pass/fail metrics - **no programming required.**
- Test stand employs time-based advanced signal processing such as peak detection, RMS, band power, filters, and triggering.
- Solution replaces a costly FactoryTalk link with direct SQL database interaction.
- Test stand generates large, structured datasets that can be reanalyzed for trends, or what-if analysis.

To learn more about this and other Signal.X projects, please visit signalxtech.com/about/portfolio/

Technology Highlights:

Control & Acquisition

- Audit test stand performs required lab-accurate flow and viscosity measurements.
- Cognex Dataman integration reads laser-etch barcode.
- Kollmorgen AKD/AKM Servo Control moves test part.
- STAX GUI on a PC completely maintains / modifies test sequence.
- Live IO View screen enables on-the-fly troubleshooting.



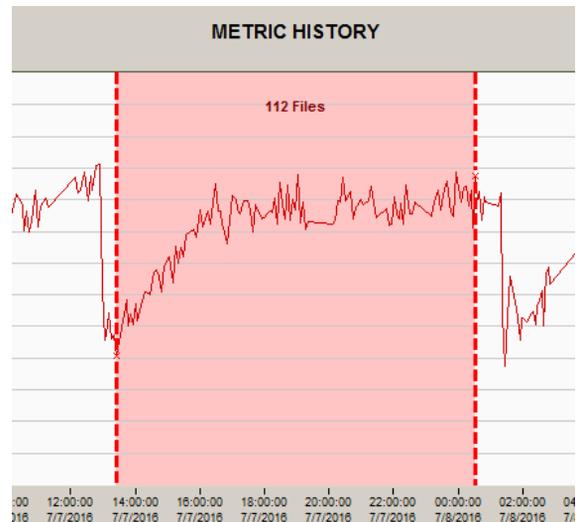
Trend Analysis – Results Viewer

- View metric trends over time, helping to identify manufacturing anomalies.
- Filter results based on date/time, serial number, part type, pass/fail, and more.
- View waveforms from individual tests, or overlay from multiple tests.
- Export results summary, or waveforms directly to MS Excel.
- Scale up to Signal.X Trove for deeper data management and report generation across multiple STAX or Shield machines.

- ☐ Sequence Control
 - ☐ Sequence
 - 000 - INIT Outputs
 - 000 - IF Servo Faulted
 - 000 - IF Oil Low
 - 000 - IF Oil High
 - 000 - IF Supply Dirty
 - 000 - IF Return Dirty
 - 000 - IF Motor Homed
 - 000 - WAIT for Cycle Start
 - H0 - IF Guard Closed
 - H1 - CMD - Home Motor

Embedded UI

- LabVIEW Real-Time drives Embedded User Interface.
- Rich data display allows viewing of waveforms and limits from recently tested part.
- Results file saves and archives all decision waveforms, limits, and processing settings.



This project showcases our ability to realize a vision to fit one customer's circumstance. Let us help you realize yours.

About Signal.X:

Since 2004, Signal.X has specialized in Test & Measurement Products for noise & vibration (NVH), production and laboratory test automation, functional test design, large data management, and custom application development.