



## Signalysis News

October, 2016

I was looking at the calendar the other day and was amazed at just how quickly this year has gone. We're keeping busy with new projects, software updates and preparing for the upcoming [Automotive Testing Expo](#). I hope that if you are going to the show that you'll stop by to see us in booth #5043. We would appreciate the chance to say hello and show you some of what we have in the works. Of course we're always interested to learn a little more about any noise and vibration challenges that you may be facing.

This issue will focus on the automotive industry and our end-of-line production test systems. Below you'll read a little about the test system we've developed for power seats. But power seats are just one of the many automotive assemblies/sub-assemblies for which we've developed test systems. Follow this [link](#) to read about our "Bumper to Bumper" quality test systems.

As always we at Signalysis want to thank you for allowing us to serve your testing needs. We strive to deliver the ultimate solution experience to our customers with unsurpassed integrity and I hope that it shows.

Sincerely,

Neil Coleman  
President  
(513) 528-6164  
[neil.coleman@signalysis.com](mailto:neil.coleman@signalysis.com)

Visit our Website



ATE Expo 2016



LabVIEW Integration

What:  
Automotive Test Expo

When:  
October 25-27, 2016

Where:  
Suburban Collection Showplace  
Novi, MI

*Be sure to look for us in booth #5043.  
Stop by to say hello and see what  
Signalysis has to offer!*

Read more [here](#).

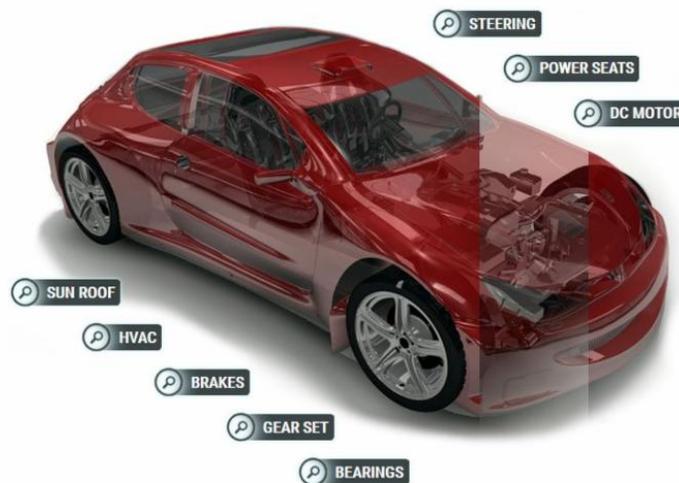
As a National Instruments Alliance Member with Certified LabVIEW developers on staff, Signalysis is uniquely positioned to provide:

- LabVIEW Development Environment
- LabVIEW Real-Time
- National Instruments Hardware Platform (PXI, cRIO, sDAQ)
- Real-Time test
- Machine Control
- Automated Inspection
- Database Connectivity
- Reporting: HTML & Office Suite

Read more [here](#).

---

## Automotive Testing



Signalysis [IQC Production Test Systems](#) perform 100% inspection of automotive components for vibration and noise defects. The system replaces subjective tests with an arsenal of signature analysis algorithms designed to objectively identify quality issues at early stages in the production line.

We offer production test systems designed especially for HVAC, Seats, Sunroofs, Steering Columns, Actuators, Wiper Motors, Solenoids, Struts, Brakes, Bearings, and more.

Go [here](#) to learn more.

---

## Power Seat Test Systems



Common power seat customer complaints are rooted in a variety of vibration, and noise issues. Our [IQC Power Seat Production Test System](#) performs 100% inspection to identify these NVH defects.

The IQC measurement system acquires dynamic response data from a defined set of transducers, sampling rates, digital filters and sample sizes. The IQC analysis engine uses high-level post-processing in both the time and frequency domains to detect faults in the drive motors, gear systems and other mechanical/moving parts during seat travel. Faults are detected based on customer and Signalysis developed metrics with statistically generated tolerance limits.

---

## 4 Questions 4: Jacob Frisco



Signalysis welcomes Jacob Frisco as a co-op this quarter. Jacob will be assisting with Webasto sunroofs and brake rotor FRF acquisition. Additionally, he will be producing a windshield wiper demonstration and HVAC demonstration kit.

### **Can you tell us a little about yourself?**

I'm the second of four children and was raised in Brecksville, Ohio near Cleveland.

I'm pursuing a degree in mechanical engineering from the University of Cincinnati. My two brothers are pursuing, or have already achieved, engineering degrees; and my sister is forecasting to be in fine arts.

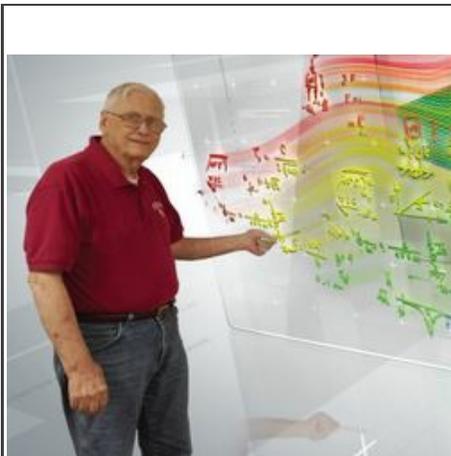
### **What other co-op experience have you had?**

My previous 3 co-ops have been with Fiat Chrysler Automobiles Group in Auburn Hills, MI working in their Noise and Vibration Harshness (NVH) department. My rotations were with different departments within NVH and included Powertrain Integration and Aero/Acoustics. Working for FCA Group granted me great insight into NVH knowledge and data acquisition techniques. Already I have a rough understanding of how conditions can excite a structure and the mannerisms to sense the responses. The most interesting thing of working with FCA Group was being able to do work on future vehicles that are still under wrap and kept secret from the public. Switching to working with Signalysis I will be able to perform admirably using by combining the theory from undergraduate classes and the applications used at FCA Group. I chose to work with Signalysis because I want a perspective of the other end of the spectrum of working for a supplier. The work I do here is equally important to help me grow my knowledge of the engineering world.

### **What are some of the things best learned from hands-on experience?**

The best things learned from hands-on is being able to witness how the mechanical system operates. Whether it be an 8-speed transmission, or an internal connection of a circuit. It's beneficial to be able to be present on the lab floor to look, point, and ask about the way a particular component moves within its system. For example, I've been in transmission labs and can say there is no better way to understand a torque converter's multiplication until you can have someone guide you through how the pieces fit together.

**What's something about you that not many people know?** Most people do not know that I am a cheerleader for the University of Cincinnati and this year will be a captain of the team. However, most people do not know that I was a professional cheerleader for the Detroit Pistons. While in Michigan, I was given an opportunity to cheer the season from February through the play-offs against the Cleveland Cavaliers. It was a thrilling experience I won't forget to be on the court performing routines for the crowds, pumping up the energy in the arena and being in the spotlight for timeout giveaways.



## **Learn from the Expert**

Bob Coleman has authored a book "*Experimental Structural Dynamics: An Introduction to Experimental Methods of Characterizing Vibrating Structures*". Signalysis is making copies of the book available to you while they last.

Go [here](#) to get a copy.

Visit our Website

## **Signalysis**

*Delivering the Sound of Silence*

Contact:

[Keith Coomer](#)

Desk: 513.528.6164

Cell: 513.328.6392

---