

SIGNALYSIS[®]
DELIVERING THE SOUND OF SILENCE™



SIGNALYSIS NEWS

MARCH 2019

To deliver the ultimate solution experience to our customers with unsurpassed integrity!

If you're like me you'll soon be filling out that NCAA tournament bracket. No doubt you're sure to come across a few head-scratching match-ups. You may make selections based on gut feel, favorite mascot, an alma mater, or maybe you'll just flip a coin. Talk about subjectivity in action! Each year it seems that *The Road the Final Four* provides the college basketball world with plenty of upsets and surprises. And while we can all appreciate a good March Madness Cinderella Story, the last thing manufacturers want to see are unexpected noise, vibration or other product quality problems.

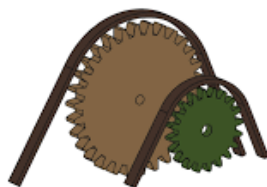
Our End-of-Line Production Test solutions provide 100% inspection of products in manufacturing environments. Identifying quality issues before your products are shipped ensures quality, reduces warranty claims, and keeps your customers happy. But did you know that we also offer solutions to help ensure product quality throughout the product life cycle? Below is more information on this. I also want to call your attention to a couple of other items in this newsletter. In particular our Users Conference, Road Shows and newest partner: Foothills Independent Sales, LLC.

From the weather to the college basketball tournament, March can be full of surprises. With Signalysis, you can be sure that product quality isn't one of them. We can help you meet NVH quality expectations prior to reaching customers and consumers.

Neil Coleman
President
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Visit our Website

Introducing Our Newest Partner!



FOOTHILLS

INDEPENDENT SALES, LLC

Based in Clemson, SC, Foothills Independent Sales will be representing Signalysis throughout the Carolinas. In general, manufacturers produce quality products and customers clearly communicate their requirements. The key is in linking the needs of the customer with the capability of the manufacturer. This is especially difficult when the products are highly technical and require customization. In this situation, the sales representative must accurately identify product specification and effectively communicate the details to the manufacturer.

Meet our Selling Partners

[Foothills Independent Sales, LLC](#)

North Carolina, South Carolina
Peter Fallon: sales@foothillsrep.com

[M6 Revolutions](#)

Idaho, Oregon, Washington, British Columbia
Jacob Stock: jstock@m6revolutions.com

[North Central Manufacturing Solutions](#)

Iowa, Minnesota, Wisconsin, Illinois
Steve Lamer: steve.lamer@ncmfgsolutions.com

[NVH Testing Technologies](#)

Michigan, Northern Ohio
Steve Johnson: Steve.Johnson@nvhtt.com

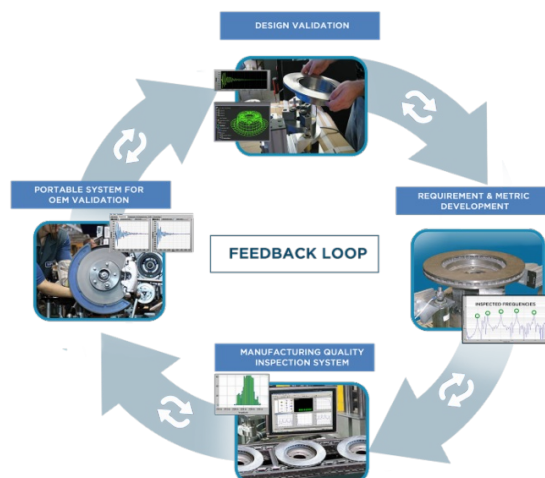
[Vertex Manufacturing Solutions](#)

Indiana, Ohio, Kentucky
Jeff Trotta: jeff@vertexms.us

Quality Throughout the Product Life Cycle

Implementing Signalysis upstream in the product life cycle saves time and money while boosting quality. The data flow from design validation testing leads to better requirements specifications on prints. This results in accelerating and improving the production quality inspection process. The true value comes when supplier Quality Engineers roll up to OEM and field inspections with confidence and a full complement of data to backup any complaints.

When it comes to quality, there's no room for subjectivity, guesswork or trial by error engineering. Let us show you how we can help.



Contact us to Learn More

2019 Seminars: Let's Get Things Rolling!

WEDNESDAY, APRIL 17

[Hampton Inn Commerce/Novi](#)

169 Loop Rd. - Commerce MI 48390

TUESDAY, MAY 7

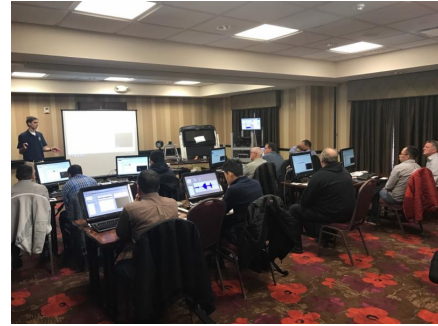
[Hampton Inn Indy South](#)

7045 McFarland Blvd - Indianapolis, IN 46237

TUESDAY, MAY 21

[Hampton Inn & Suites Greenville/Spartanburg I-85](#)

108 Spartangreen Blvd. - Duncan, SC 29334



These FREE one-day sessions provide a basic understanding of sound and vibration principles along with a practical understanding of end-of-line quality inspection systems. The seminar also includes an introduction to Signalysis quality inspection software, SigQC™.

What's Included:

- There is no cost to attend.
- A complimentary lunch is provided.
- We invite you to bring functioning parts (good and bad) for discussion following the seminar. Please make arrangements with your seminar host below prior to the seminar.

Registration & Information

Michigan:

Steve Johnson

Steve.Johnson@nvhtt.com

248.761.6133

Indiana:

[Jeff Trotta](#)

765.524.7595

South Carolina:

Peter Fallon

pete@foothillsrep.com

864.722.3800

Check our web site for additional seminars.

Seminar Agenda General

Seminar will run from 9:30-3:00

Morning Session

- Introduction to Signalysis
- Introduction to Sound and Vibration
- Hands-On Example
- Real-Life Application

FREE LUNCH!!!!!!

Afternoon Session

- More Real-Life Applications
- Metric Analysis and Development
- Statistical Tools and Data Analysis
- Q&A

Case Study: Automotive Axle Noise

When a Tier 1 automotive supplier required a production line test system to assess final drive transmission errors, they naturally called on Signalysis to deliver a solution.

Challenges

- Objectively Identify Root Cause of Errors
- Validate Functional Specifications, Ergonomics and Human Machine Interface
- Have a Minimal Impact on Production Time

An Automated Solution

Signalysis designed and developed an IQC™ test system that was integrated into the production line for 100% unit testing. The IQC system includes a computer control system, multi-channel data acquisition system, digital I/O interface hardware, accelerometers / automated placement devices and SigQC™ analysis software.

The system was integrated with a 3rd party test station to conduct 100% part inspection. The system acquired and processed running data, assessed pass/fail, and archived the pertinent data. The inspection station was installed at the earliest point possible in the assembly line to identify “bad” gear sets prior to full axle build.

System Functions

- Confirms the test cell achieved correct speed and quasi-static running torque
- Calculates dynamic torque amplitude at mesh frequency for each steady state torque condition
- Calculates peak torque value at mesh frequency for torque sweep
- Compares torque amplitude to established limits to assess pass- fail limits
- Exports metric values to central manufacturing database for SPC activities
- Automatically processes data from different models (i.e., F/D ratios)

Delivering Results

The IQC test system met all test objectives enabling our customer to:

- Pinpoint and eliminate causes of errors
- Effectively validate aesthetic and functional specifications
- Minimize the impact on overall production cycle time
- Eliminate cost and subjectivity associated with human inspection

[More Case Studies](#)



Signalysis Knowledge Base is your one-stop shop for case studies, white papers, newsletters, articles, books and more!

[Check it Out](#)

4 Questions 4: Peter Fallon



As President of Foothills Independent Sales, Peter Fallon is constantly on the go. We caught up with him just long enough to get his answer to four quick questions.

Can you tell us a little about yourself?

I graduated from Michigan Technological University with a degree in Mechanical Engineering Technology. I spent the early years of my career as a Design Engineer, Customer Support Manager, and Production Manager with a diesel mining equipment manufacturer. I joined Clemson University in 2012 working closely with BMW and other Tier I suppliers to start up the Clemson University Component Testing Laboratory. I formed Foothills Independent Sales in 2015. I live in Six Mile, South Carolina with my wife and two children.

In your opinion, what is the biggest challenge manufacturers face today?

Linking customer requirements with the manufacturer’s capability is critical. This is especially difficult when the products are highly technical and require customization. In this situation, the sales representative must accurately identify product specification and effectively communicate the details to the manufacturer. With ten years of engineering

experience on both the manufacturing and sales side of projects this is where we really add value.

What compelled you to partner with Signalysis?

Manufacturers are challenged with excessive warranty claims, lost contracts, and decreased market share; all stemming from product quality issues. As a result, quality remains an overriding concern. Many taking quality control measures are implementing subjective techniques with inconsistent results. I learned of Signalysis and their objective product quality testing solutions. It became clear that there was a real need for such technology and I felt that our companies were a great fit.

Last question. What's something about you that not many people know?

I am into Home Brewing. I have been doing it for eight years and I actually own a home brewing supply store!



Hooked on Vibration!

Did you receive your September 2017 issue of *Sound & Vibration* magazine? If so, flip to page 8 and read how our own "NASA Bob" Coleman got his start to a stellar career and his many contributions to the industry. Don't have a copy of the magazine? That's OK you can read it [here](#).



Remember, nobody knows vibration like Bob Coleman; and we're making copies of his book available to you while they last. [Learn more here](#).

"Experimental Structural Dynamics: An Introduction to Experimental Methods of Characterizing Vibrating Structures"

Request a Copy



To deliver the **ultimate solution experience** to our customers
with **unsurpassed integrity!**

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[Keith Coomer](#)

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Cell: 513.328.6392