



Inside This Issue

FEATURED ARTICLES:

2018 INSPECTION DIVISION CONFERENCE

MAXIMIZING LASER SCANNING QUALITY, ACCURACY, AND EFFICIENCY IN MANUFACTURING

DEPARTMENTS:

<i>Chair's Message</i>	—7—
<i>Conference Exhibitors and Sponsors</i>	—6—
<i>2018 Inspection Division Business Plan</i>	—7—
<i>Inspection Division Calendar</i>	—8—

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DIVISION WEBSITE AT
ASQ.ORG/INSPECT

Chair's Message | Jim Spichiger



13 Reasons Why

The extremely popular and hugely successful Netflix series "13 Reasons Why" is a drama that addresses the serious issues of suicide, rape, homosexuality, adolescent sexual activity, and bullying. Wow—that is some real serious stuff! The show has a tremendous story line with fantastic acting, so I have thoroughly enjoyed watching both seasons and highly recommend it for its entertainment value and the enlightenment it provides. Though the Inspection Division's mission is nowhere near as serious, I have taken the liberty of borrowing their title for my chair's message in this special-edition newsletter.

The fall season is nearly upon us, which means the annual Inspection Division Conference will soon be here. Our conference has grown over the past six years into an exciting, educational, and well-attended event. This year's conference promises to be the biggest and best yet. Here are 13 reasons why you should attend the 2018 Inspection Division Conference:

- Exhibits.** Come meet with 20 exhibitors who will provide you the latest information about their services and offerings. Exhibitors are from a wide swath of the quality profession—from manufacturers of measurement and test equipment to publishers and software providers.
- Keynotes.** Each morning the conference kicks off with a keynote address. We are honored and privileged to provide outstanding presenters from two major corporations: Hexagon Manufacturing Intelligence and BMW.
- Tours.** Five fantastic and educational tours await a limited number of attendees (there is limited seating and advance registration is required). Learn while observing first-class organizations in their own setting. Free round-trip bus transportation is provided!
- Workshops.** The four, five-hour interactive workshops are the hidden jewel of our conference. These hands-on educational offerings are provided at no additional cost.
- Sessions.** This two-day conference provides 16 conference sessions on two separate tracks. Topics run the gambit from technical (auditing, automotive, food industries, and Six Sigma) to personal (career planning and training). Begin by obtaining a greater understanding of ISO inspection standards and end your conference by developing strategic supplier partnerships.
- Reception.** The real fun happens during our early evening networking reception! Conference attendees can enjoy complimentary hors d'oeuvres and adult beverages as they mingle with each other and with exhibitors, presenters, and volunteer Inspection Division leaders.
- Product tutorials.** Our platinum-level exhibitors will dazzle you with demonstrations of the latest and greatest measurement and test equipment. These tutorials provide the ideal setting to see next-generation tools at work while offering ample opportunities to have your questions answered.
- Training courses.** Six preconference training courses offer a wide selection of educational opportunities at the very best of prices. Four ASQ certification exam preparation courses are offered!
- Recertification units.** Attendees will earn two all-important recertification units!
- Convenience.** The Fogelman Executive Conference Center and Hotel offers everything you need at one location. All the conference activities are just a few short steps from your hotel room. Luxurious suites are complemented with on-site dining options and a magnificent lounge.
- Affordability.** Early-bird registration (only \$299!) and discounted hotel rooms provide fantastic savings. A free airport shuttle (with advance notice) and free parking adjacent to the conference center further add to your savings.
- Member leaders.** Most of the Inspection Division leadership team will be in attendance throughout the conference. Please introduce yourself and provide us your invaluable feedback on your membership experience.
- Memphis, TN!** The beautiful city of Memphis is at your beckoning! Enjoy the sites, food, music, and fun of this historic Mississippi River town. Come early or stay after the conference to soak up all this fabulous city has to offer.



2018 INSPECTION DIVISION CONFERENCE

Fogelman Executive Conference Center and Hotel
October 18 – 19, 2018 | Memphis, TN



The Inspection Division is pleased to announce that its 2018 conference will be held on October 18 – 19 at the Fogelman Executive Conference Center at the University of Memphis in Memphis, TN.

HIGHLIGHTS:

- 20 Exhibitors
- 16 Conference Sessions
- 6 Preconference Courses
- 5 Tours
- 4 Workshops
- PLUS 1 Fantastic Networking Reception!

Quality: A Bridge to the Future

The 20th century provided the greatest technological advances in the history of mankind. What was once a linear rate of change has shifted to an exponential rate so significant progress can be expected throughout the 21st century. However, change is not just limited to technology, for organizations saw and will continue to see advancement in an expanding global supply chain, evolution in leadership systems, development and deployment of effective strategic planning, and an increase in various management systems.

Quality, too, has seen significant advances over the past century as quality management systems,

statistical techniques, Six Sigma, and automated inspection were developed and evolved. Quality has and will continue to prove to be a key differentiator in an organization's success, thus "quality is a bridge to the future."

The 2018 ASQ Inspection Division Conference is an important stop on one's quality journey. The conference will help individuals and organizations bridge the gaps between remembering, understanding, and contributing. Experienced professionals from a multitude of industries will serve as your guide as they present relevant and value-added information during interactive workshops

and conference sessions. Numerous exhibitors will demonstrate the latest inspection equipment the market has to offer. In addition, the conference is offering several tours that will enable attendees to see state-of-the-art manufacturing systems and to hear first-hand these organizations' transitional plans as they prepare for the future.

Sitting on the banks of the Mississippi River, Memphis, TN, with its expansive and beautiful bridges, provides an idyllic setting for this year's conference. Please join the Inspection Division as it shares knowledge and demonstrates how quality will serve as a bridge to the future.

The conference committee is pleased to host two keynote speakers

Thursday, October 18

Shaping the Future of Manufacturing

Today, manufacturers are squarely focused on reengineering product development with single-minded purpose. From concept to reality, we are heading toward a connected world where data informs the process every step of the way. This keynote session will present a frontline view on how emerging technologies, processes, and production methods are shaping the future of manufacturing. Zachary Cobb will discuss concepts of connectivity and the importance of linking systems and information together. He will address the role model-based engineering plays in the tools, connectivity, data analysis, and quality in the organization. The session will also cover the changing workforce and its impact on the enterprise. Attendees looking to leverage the benefits of smart factory practices will find Cobb's outlook on the future both helpful and exciting.



Zachary Cobb



Friday, October 19

Driving Quality at BMW

BMW is the Ultimate Driving Machine. That means that it's a pleasure to drive, and that in every aspect there is quality, quality, quality! In this presentation, learn how BMW Manufacturing Corp. manages, monitors, measures, assesses, and improves quality. Find out how the organization assesses the quality of the final product, about its quality management systems, and target management process. You will hear about Lean Six Sigma continuous improvement as well as the BMW value added production system.



Eric Haylor



For a full biography of each speaker, please visit the conference website asq.org/conferences/inspection-division.



2018 Inspection Division Conference Registration Fees

Register online at <https://prdweb.asq.org/ecommerce/InspectionConference/>.

Registration	Early-bird pricing prior to September 15	Regular pricing on or after September 15
Full conference	\$299	\$399
One day	\$199	\$269
Full conference group rate (4 or more)	\$249	\$325
Virtual (watch via a live stream)	\$99	\$99

Contact Jim Spichiger at jim.spichiger@hotmail.com for information on how to register groups of four or more.

Details about the workshops, tours, and preconference courses are provided on the conference website at asq.org/conferences/inspection-division.

Tours

The conference is pleased to offer these tours. Free roundtrip busing from the conference center will be provided; seating is limited, so advance registration is required!

	Thursday October 18	Friday October 19
Morning	Smith & Nephew —No fee	Gibson Guitar Factory Tour —No fee
Afternoon	Applied Technical Services and Old Dominick Distillery —No fee	Graceland Mansion —\$45

Preconference Courses

The Inspection Division is pleased to announce that it will be offering these six courses preceding the conference. All classes will be held at the Fogelman Executive Conference Center and Hotel. Registration includes continental breakfast, lunch, and breaks.

Plan Ahead: Discounted hotel rates are only available until September 10 so PLEASE make your room reservations now!

Three-day courses October 15 – 17	Two-day courses October 16 – 17
CQT Exam Prep —by John Vandendenden	CQI Exam Prep —by Josh Worthley
CQA Exam Prep —by Kevin Posey	Fundamentals of GD&T —by Mark Morris
Six Sigma Yellow Belt Exam Prep —by Jim Spichiger	Measurement Uncertainty —by Anish Shah

Product Tutorials – More in 2018!

Based on feedback from last year’s conference, the 2018 Inspection Division Conference will be offering an increased number of product tutorials! Help your organization prepare for the future by meeting with our platinum-level sponsors as they demonstrate the latest advances in inspection technology during intimate and up-close sessions. A complete product tutorial will be followed up by Q&A.

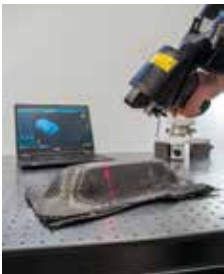
Workshops

From 10:00 a.m. – 4:30 p.m. each day, attendees have the opportunity to attend hands-on interactive workshops for no additional fee! Seating is limited, so advance registration is required.

Thursday October 18	Friday October 19
Acceptance Sampling	Core Tools
Basic Inspection: Beginning Level	Managing Risk in Calibration

Maximizing Laser Scanning Quality, Accuracy, and Efficiency in Manufacturing

In the digital manufacturing age, quality and production process stakeholders must choose and implement metrology solutions that help build closed-loop manufacturing systems.



When it comes to 3-D laser scanners and portable coordinate measuring machines (PCMMs), the stakes are high. In today's advanced manufacturing environment, controlling production costs and delivering high-quality parts are critical to maintaining your competitive advantage in the marketplace.

A variety of scanners are well suited for applications like point cloud inspection, product benchmarking, reverse engineering, rapid prototyping, virtual assembly, and CNC milling. A thought to keep in mind when reviewing scanners is this guiding principle: Can anyone use the scanner and get good results?

Production-Cycle Time Savings

Today's laser scanners are robust tools engineered to deliver scanning speed and job-site productivity. Selecting a laser scanner with a wide line greatly enhances your productivity, but not all scanners are created equally. Some of today's most powerful scanners offer a 150 mm scanning line, which increases scanning speed by offering more surface area to the technician doing the job. The analogy of a paint roller works here, a perfect tool for painting a large area quickly. By selecting a scanner with a wide scan line, your technicians can scan objects much faster. Further performance gains can be had when selecting a solution that has a built-in scanner. This way, you optimize cycle times because



About the author

Zvonimir Kotnik is Hexagon Manufacturing Intelligence's North American director of portable products and process integration. A seasoned executive in the advanced industrial market, Kotnik has 20+ years of experience in the data-driven manufacturing arena. In his current role, he is responsible for managing Hexagon Manufacturing Intelligence's arms, tracker, and WLS product lines. This complex role spans financial performance, profit growth, supply chain management, business and engineering management, and shared services management responsibilities.

Kotnik holds a bachelor of science degree in electrical engineering from Montana State University–Bozeman. He and his family make their home in Southern California.

the scanner is attached, and does not need to be calibrated each time you use it. All that is necessary is to turn it on and go.

Speed and Accuracy

In operation on the factory floor, providing speed requires a device that allows the operator to quickly and accurately scan for measurements with the least number of laser passes. Again, most devices fall short with narrow scanning lines requiring numerous passes to gather the information. As of last year, laser scanning solutions were up to 60 percent faster than their predecessors. When coupled with the wider scanning line, and higher point resolution, users obtain greater point cloud detail in significantly less time during a scanning session. Not all laser scanners require a high definition mode, which drops the scan line down to as narrow as 75 mm to obtain a rich point cloud about the part being scanned.

Another shortcoming of many scanners is the surface preparation required to scan the part surface. Typically, laser scanners require the user to spray or powder a part to ensure that the solution can accurately "see" the surfaces it is scanning. In addition, highly reflective or dark-colored parts can cause problems. Scanners with flying-dot technology enable the user to scan despite shiny or reflective surfaces, and selecting a solution that automatically adjusts for low-light or bright-light solutions delivers the speed and accuracy today's operations need.

Increasing Data Points Improves Efficiency

A modern scanner with completely new optics and electronics allows for 60 percent faster scans than its predecessor

and great detail of complex parts. Many of today's laser scanners top out at around 2,000 points per line at low accuracy and just 1,300 in high accuracy. Truly fast scanning requires the highest number of data points achievable in a single line. Market research at the end of last year showed that scanning technologies offered a capability of 7,520 points per line and an astronomical 752,000 points per second versus the average of 2,000 points per line with most scanners.

Simplifying the Scanning Process

Advanced manufacturers work with materials that present challenges to traditional scanning technologies, specifically carbon fiber and machined steel surfaces. In many cases, these surfaces include contoured details that create complex shapes for scanning. If your operation is working with complex automotive doors or composite aircraft wings that feature holes or surface cavities, being able to employ tactile and noncontact dimensional measurements in the same session is vital for simplifying and accelerating the work. In this case, being able to use an easily mounted touch probe simplifies the workflow. Hard probing into a part that has a complex terrain structure can save valuable time, especially if the probe offers a self-centering capability.

Lastly, the laser scanning system must be able to interface with leading scanning software that provides a full range of filter management scanning functionalities. This includes important features like point smoothing and removal, noise reduction, and other management functions to intelligently reduce file sizes and processing time without sacrificing accuracy or part integrity.

What It All Means for Complex Scanning Applications in the Field and on the Factory Floor

As advanced manufacturers craft their strategies for staying competitive in a production environment, solutions like portable laser scanners become necessary to ensure that productivity and quality goals are achieved. A good example is the Hexagon Manufacturing Intelligence ROMER Absolute Arm with the Integrated RS4 Scanner, which has evolved to provide a high level of user ergonomics for all-day ease of use.

The development of the current ROMER arm with scanner is borne out by the diverse user bases that work with the solution: metrology/inspection staff, manufacturing staff involved in production, and CAD and engineering staff, who need to measure and verify geometric properties such as lengths, thicknesses, and angles. With touchless scanning, organizations can use a CAD comparison process that quickly shows deviations from the theoretical part produced against the theoretical or original one.

Laser scanners provide a solution to multiple challenges faced on the manufacturing floor. This includes verifying and reverse engineering 100 percent of complex parts. Likewise, users of the portable measuring arm can switch seamlessly between tactile probe measurements and laser scanning to acquire 3-D point data from a wide variety of surface types.

In this way, today's laser scanners become part of a holistic process with other technologies in the modern manufacturing environment. This cohesive environment is foundational to turning data into action for optimized manufacturing processes that save time and money while increasing quality.

Network While in Memphis!

The value of networking cannot be understated, so the Inspection Division takes great pleasure in providing its members numerous opportunities to connect with professionals who share a common interest. Attendees at this year's conference will be able to network at lunch, during breaks, in the exhibit hall, while on tours (especially on the bus), and of course at the Thursday evening reception! Prior to venturing out for dinner, please join us for complimentary hors d'oeuvres and beverages in a casual atmosphere; the reception promises to be a relaxing and fun-filled event.

Unable to Travel to Memphis?

SPECIAL OFFER

Attend the 2018 Inspection Division Conference virtually!

The Inspection Division Conference Committee is proud to announce that it will once again offer **the virtual conference!** Save time and money by registering for a virtual conference experience. All the conference activities presented in the auditorium will be streamed live. These activities include the keynote presentations, and 10 conference sessions over a two-day period. The fee for the virtual conference is only \$99. Registration for the conference and the virtual conference is now available on the conference website.

2018 Conference Exhibitors and Sponsors

Platinum Level



Gold Level



Silver Level



Bronze Level



2018 Inspection Division Business Plan | George Cutler

It is with great pleasure and pride that the Inspection Division Management Committee (DMC) can report that the 2018 business plan is being managed with great success. Over half of our 28 activities have already been completed and all remaining activities are on target for completion. Achieving 100 percent completion of all goals would be a tremendous accomplishment, so THANK YOU to the entire DMC for their tireless efforts!

The 2018 Inspection Division business plan is shown at right, along with the current status for each activity.

For more information about our 2018 activities or how the business plan is managed, feel free to contact George Cutler: cutlergeorge@gmail.com Phone: 908-310-9648.

KUDOS!

THANK YOU to all of the Inspection Division member leaders for their time and talents. We would not be so successful without you! Your efforts are appreciated. Special recognition goes to the following:

Shirl Furger – for her patience and many years of assistance to the Inspection Division

Jair Aldana – for his outstanding work coordinating monthly webinars

Chigbo Ezumba – for his countless hours dedicated to publicizing the 2018 conference

Sam Bryson – for publishing an article in *Quality Magazine* (September 2018)

Links to the Inspection Division's Social Media

- Facebook: [@asqinspectdiv](https://www.facebook.com/asqinspectdiv) or <https://www.facebook.com/asqinspectdiv>
- Twitter: [@asqinspectdiv](https://twitter.com/asqinspectdiv)
- LinkedIn: <https://www.linkedin.com/groups/4657260>
- Inspection Division web page: www.asq.org/inspect



Inspection Division Activities	Goal	Status
1. Contact each ASQ international regional center	4 offices	25%
2. Recruit member leaders, both domestically and internationally	2 new volunteers	100%
3. Offer and promote the Chuck Carter International Inspector of the Year Award	Bestow award	100%
4. Host networking receptions at WCQI and division conference	2 receptions	50%
5. Monthly email communication to all division members	12 messages	66%
6. Send monthly new member welcome	12 welcomes	66%
7. Send monthly reminder for renewal	12 reminders	66%
8. Conduct VOC survey	Complete on time	Fall
9. Publish Inspection Division electronic newsletters	3 newsletters	66%
10. Publish special edition of newsletter (hard copy)	1 edition	100%
11. Publish articles on inspection-related topics in <i>Quality Magazine</i> (quarterly)	4 articles	75%
12. Actively maintain LinkedIn group, Facebook page, and Twitter accounts	Maintain	100%
13. Secure advertisers for newsletter	3 ads per issue	100%
14. Secure conference exhibitors and sponsors	20 exhibitors/sponsors	100%
15. Attend a TAG TC 176 meeting	Attend a meeting	100%
16. Offer a CQI exam refresher course	Offer 1 course	100%
17. Offer a CQT exam refresher course	Offer 2 courses	100%
18. Host webinars	12 webinars	66%
19. Host annual division conference (October 18 – 19, 2018)	Host conference	Oct.
20. Enhance member leader skills and knowledge via e-learning	2 courses each, minimum	100%
21. Officer training sessions and TCC meetings	Attend all sessions	66%
22. Mentor officers and chairs; two 1:1 meetings each	Complete on time	50%
23. Bestow Cooper Award	Issue award	100%
24. Certificate of Appreciation for each member leader	Issue certificates	Dec.
25. Offer H. James Harrington scholarship	Issue scholarship	100%
26. Seek out and nominate candidates for Fellow	1 nomination	100%
27. Raise awareness of Inspection Division through section/student branch event collaboration	12 interactions	100%
28. Exhibit booth at WCQI	Complete on time	100%

2018 INSPECTION DIVISION CALENDAR

Date	Time	Event
September 11	11:00 a.m. (EST)	Webinar: White Light Sensors, Carl Zeiss Industrial Metrology, LLC
October 9	4:00 p.m. (EST)	Webinar: System Testing
October 15 – 17	8:00 a.m.	CQA Exam Prep, Memphis, TN
October 15 – 17	8:00 a.m.	CQT Exam Prep Class, Memphis, TN
October 15 – 17	8:00 a.m.	Six Sigma Yellow Belt Exam Prep Class, Memphis, TN
October 16 – 17	8:00 a.m.	CQI Exam Prep Class, Memphis, TN
October 16 – 17	8:00 a.m.	GD&T Course, Memphis, TN
October 16 – 17	8:00 a.m.	Measurement Uncertainty, Memphis TN
October 18 – 19	8:30 a.m.	Inspection Division Conference, Memphis, TN
October 18	6:00 p.m.	Networking Reception, Memphis, TN
October 20	8:00 a.m.	Division Management Committee Business Meeting, Memphis, TN
Third Wednesday of each month	4:30 p.m. (EST)	Division Management Committee conference call

All division meetings and conference calls are open to all Inspection Division members. To join a conference call, contact any officer for dial-in instructions. Check the Inspection Division website at asq.org/inspect for the latest information about our offerings.

Happy 50th Birthday! The Inspection Division will be celebrating its 50th birthday on November 15! Please be on the lookout for our 50th anniversary e-newsletter that will be published in November. Navin Dedhia, our newsletter editor, is planning a very special edition that will include a look back at our 50 years. Due to the extreme volume of material, this e-newsletter will only be available online, but you will be able to download a PDF version.

Division Leadership

A complete listing of the Inspection Division leadership team is available at asq.org/inspect/about/leadership-inspect.html. If you have any interest in contributing your time and talents to help serve the members of the Inspection Division, please contact George Cutler at cutlergeorge@gmail.com.

Please Opt In

Inspection Division leadership asks all members to please opt in to receive emails from the division. Electronic communication is our primary method of communicating; blocking our emails will significantly limit the ability to take advantage of your membership benefits.

If you decide to opt out, please visit the Inspection Division website periodically to see our announcements, view our electronic newsletter, and check our calendar of events. Also, please join a LinkedIn group, Facebook, or Twitter.

