Tuesday April, 9

Managing Change - HR Processes that Impact the Bottom Line

Session Code: WF1  Room 101A  Session Time: 8:30 a.m.

HR Systems and processes can be a catalyst for high performance in an organizational culture or they can be a barrier to the ability to compete. Come see what one company has done to remove some of the traditional HR paradigms that can inhibit flexibility and associate ownership in the core business processes...seniority based promotion systems, labor grades, performance management. The “Squeeze on Automotive Suppliers” creates the need for rapid continuous change to achieve higher performance. Bosch manufacturing plants in Anderson, SC and Charleston, SC continue their quest for preparing their workforce and compete in an ever changing environment to improve the bottom line.

Organizers - Charlie Ackerman, Bosch Corp.

Moderators - Charlie Ackerman, Bosch Corp.

Panelists - Charlie Ackerman, Bosch Corp.; Debbie Croft, Roger S. Heitzeg, Vickie Middleton, Robert Bosch Corp.

Tuesday April, 9

Developing Leaders Within your Workforce

Session Code: WF2  Room 101A  Session Time: 10:30 a.m.

In today’s global economy the development of formal and informal leaders is critical to the success for all businesses. The panelists will discuss and explain the framework in their organizations for: Developing Leaders, Development of Talent, Global Leadership, Management of Multiple Locations, International Management Responsibilities, Motivation and morale when opportunities for advancement do not exist and Managing motivation in flat organizations.

Organizers - Ferol B. Vernon, Siemens Diesel Systems Technology

Moderators - Glenda Thompson, Norton Group

Panelists - George Gratz, Siemens Diesel Systems Technology; Gary Mitchell, International Truck and Engine Corp.; Dodd Smith, Honeywell Corp. Metglas-Solutions

Tuesday April, 9

Success Through Educational Partnerships

Session Code: WF3  Room 101A  3:45 p.m.
This session will describe education partnerships between public schools, colleges and automotive manufacturing industries to enhance workforce skills.

**Organizers** - James Hudgins, South Carolina Technical College System

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper No.</th>
<th>Title</th>
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<tbody>
<tr>
<td>3:45 p.m.</td>
<td>ORAL ONLY</td>
<td>Overview of Educational Model for Partnering with Industry</td>
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<td></td>
<td></td>
<td>James Hudgins, South Carolina Technical College System</td>
</tr>
<tr>
<td>4:15 p.m.</td>
<td>ORAL ONLY</td>
<td>Clemson Universities Automotive Engineering Manufacturing Emphasis</td>
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<td>Richard S. Figliola, E. Harry Law, Clemson Univ.</td>
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<tr>
<td>4:45 p.m.</td>
<td>ORAL ONLY</td>
<td>Partnership Through Apprenticeship</td>
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<td>Barbara Parker, Trident Technical College</td>
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</table>

**Tuesday April, 9**

**Plant Floor Innovations**

**Session Code:** IT1

**Room 101B**  
**Session Time:** 8:30 a.m.

This session will discuss the manufacturing innovations with respect to product concepts.

**Organizers** - Bernhard Eich, BMW Manufacturing Corp.

<table>
<thead>
<tr>
<th>Time</th>
<th>Paper No.</th>
<th>Title</th>
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<tbody>
<tr>
<td>8:30 a.m.</td>
<td>2001-01-3706</td>
<td>The Future of Assembly</td>
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<td></td>
<td>ORAL ONLY</td>
<td>Manfred Steinbauer, BMW AG</td>
</tr>
<tr>
<td>9:00 a.m.</td>
<td>2001-01-3707</td>
<td>High Speed Robotic Measurements in Car Manufacturing</td>
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<td>ORAL ONLY</td>
<td>Alfred Traidl, BMW AG</td>
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<tr>
<td>9:30 a.m.</td>
<td>2001-01-3708</td>
<td>The Way to Modules</td>
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<td>CANCELLED</td>
<td>Markus Zogg, Rieter Automotive Management</td>
</tr>
</tbody>
</table>

**Tuesday April, 9**

**Converting Information to Knowledge**

**Session Code:** IT2
Energy Management  
Session Code:  IT3  
Room 101B  
Session Time:  10:30 a.m.  
Automotive manufacturing facilities are dependent on reliable, high quality electricity at an affordable price. Energy usage monitoring and efficient management practices can decrease operating expenses and increase profit margins. Attendees will learn the best ways of keeping their facility up and running in the most efficient manner possible.

Organizers -  Dennis Carl Seeger, Detroit Edison Co.

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<tr>
<th>Time</th>
<th>Paper No.</th>
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<tbody>
<tr>
<td>10:30 a.m.</td>
<td>2002-01-2260</td>
<td>Web-Based Product Development at ArvinMeritor</td>
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<tr>
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<td>Joe A. Wilbanks, ArvinMeritor Inc.</td>
</tr>
<tr>
<td>11:00 a.m.</td>
<td>ORAL ONLY</td>
<td>Knowledge Management: Benchmarking the Strategies and Tools you Need to Build your Enterprise Information Portals</td>
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<td>Richard Medina, Doculabs Inc.</td>
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<td>11:30 a.m.</td>
<td>ORAL ONLY</td>
<td>Exploiting the Intellectual Property within your Engineering Organization</td>
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<td>Mikhail Verbitsky, Invention Machine Corp.</td>
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</tbody>
</table>

Tuesday April, 9

Executive Panel - Overcoming the Challenges Facing Automotive Manufacturers  
Session Code:  PAN1
Room 102A, 102B  Session Time:  1:45 p.m.
The last decade's business strategy was to merge, consolidate and optimize synergies. Today, Automotive Manufacturers are striving to meet the continuously changing demands of the consumer. What lessons have we learned? What does flexibility really mean? How will on-line ordering affect the factory floor and Supply Chain? How do we develop a capable flexible workforce?

Organizers - Brenda M. Cox, Carl W. Flesher, Eckhard Hommrichhausen, BMW Manufacturing Corp.

Moderators - E. Mark Quinn, KPMG LLP

Panelists - John M. Grandin, Univ. of Rhode Island; John Paul Mac Duffie, Univ. of Pennsylvania; Don Stebbins, Lear Corp.; William C. Taylor, Mercedes-Benz US Intl. Inc.

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Tuesday April, 9

The Live, Hands-on, Lean Factory Model - Part 1 - Identifying your Manufacturing Problems

Session Code:  LN1

Room 102C  Session Time:  8:30 a.m.
The Live Lean Factory is a working model of a manufacturing facility that will enable participants to simulate manufacturing, assembly, and shipping operations using two common processes - Traditional Mass Production (Push), and Just-in-Time Manufacturing (Pull). The opening session will depict the typical mass production "push" plant. Exposing the flaws of the push system will serve as a segue into subsequent sessions.

Organizers - Richard Scimeca, Ghafari ESG L L C

Moderators - F Roy Piciacchia, Lockwood Greene Engineering Inc.

---

Tuesday April, 9

Clemson University on Research in the Automotive Field

Session Code:  MP6

Room 103  Session Time:  8:30 a.m.
Research initiatives are producing cost-savings in automotive design and production like never before, and facilitating a focus on extremely specific market segments. The Clemson University Institute for Advanced Materials and Manufacturing gives a presentation of virtual-prototype models produced by the linkage of 90 CPUs. Clemson's Center for Motorsports Excellence demonstrates the impact of research on this industry and on NASCAR in particular.

Organizers - James Barnhill, South Carolina Dept. of Commerce; Henry E. Watson, Clemson Univ.
### Tuesday April, 9

**Advanced Fabrication & Joining Technologies**

**Session Code:** MP2  
**Room 103**  
**Session Time:** 10:30 a.m.

This session will present state-of-the-art joining and fabrication technologies that show significant potential in automotive industries.

**Organizers** - James F. Cuttino, Univ. of North Carolina Charlotte

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<tr>
<th>Time</th>
<th>Paper No.</th>
<th>Title</th>
<th>Authors</th>
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<tbody>
<tr>
<td>10:30 a.m.</td>
<td>2001-01-3709</td>
<td>Strategies for Improving the Cutting Performance of Machine Tools</td>
<td>Scott Smith, Op Source Inc</td>
</tr>
<tr>
<td>11:00 a.m.</td>
<td>ORAL ONLY</td>
<td>The State-of-the-Art in Precision Hard Turning</td>
<td>Matthew A. Davies, National Institute Standards &amp; Tech.</td>
</tr>
<tr>
<td>11:30 a.m.</td>
<td>ORAL ONLY</td>
<td>Friction Stir Welding in Automotive Applications</td>
<td>Lawrence M. Dziadosz, Tower Automotive Inc.</td>
</tr>
</tbody>
</table>

### Tuesday April, 9

**Paint**

**Session Code:** MP3  
**Room 103**  
**Session Time:** 3:45 p.m.

This session will discuss BMW's Paint Department in Greer, SC utilizing a Micro-shift model to maximize utilization of facilities and achieve efficiency/process stability.
Tuesday April, 9

Lean/6 Sigma
Session Code: LN2
Room 104A 
Session Time: 10:30 a.m.
This session will discuss the tools of Lean/6 Sigma and how to integrate them within an organization.

Organizers - Don Bernhardt, Lear Corp.

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<tr>
<th>Time</th>
<th>Paper No.</th>
<th>Title</th>
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<tbody>
<tr>
<td>3:45 p.m.</td>
<td>ORAL ONLY</td>
<td>Full Utilization of an Automotive Paint Facility</td>
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<td><em>Doug Bartow, BMW Manufacturing Corp.</em></td>
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<tr>
<td>3:45 p.m.</td>
<td>ORAL ONLY</td>
<td>Piggable Paint Circulation Systems</td>
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<td><em>Dara Leadford, BMW Manufacturing Corp.</em></td>
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<td>4:45 p.m.</td>
<td>ORAL ONLY</td>
<td>The Best Pump for Paint</td>
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<td><em>Tony Mazza, Mike Cunningham, Dave Murray, Waukesha Cherry Burrell</em></td>
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Tuesday April, 9

Rationalization & Justifying Lean
Session Code: LN3
Room 104A 
Session Time: 3:45 p.m.
This session will comprehend three elements crucial to justifying the undertaking of a lean enterprise transformation initiative: quality, financial and cultural.

Organizers - Jamie Flinchbaugh, Lean Learning Center; J. Robert Kelley, Ghafari ESG L L C

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<th>Time</th>
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<tr>
<td>10:30 a.m.</td>
<td>ORAL ONLY</td>
<td>How Lear Integrates Lean and Six Sigma</td>
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<td><em>Jeffrey J. Freligh, Don Bernhardt, Lear Corp.</em></td>
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</table>
Tuesday April, 9

Minority & Small Business Development - Panel

Session Code: SC1
Room 104B  Session Time: 8:30 a.m.

This panel will share the importance of supplier diversity, what it means to their business and communities, why they initiated such a program and what the future holds. At the conclusion of this presentation, there will be an opportunity for Q&A with each member of the panel. Find out how your cooperation can gain a competitive edge.

Organizers - Lennie Beamon, BMW Manufacturing Corp.
Panelists - Hank Aaron, Hank Aaron BMW; Kirk J. Lewis, Bing-Lear Manufacturing Group; Martin Wardle, Michelin North America

Tuesday April, 9

Collaboration

Session Code: SC2
Room 104B  Session Time: 10:30 a.m.

Panel speakers will discuss best practices in the use of collaborative technologies and impacts on business processes, trading relationships and the benefits derived.

Organizers - Daniel F. Wecker, Cross Commerce
Moderators - Daniel F. Wecker, Cross Commerce
Panelists - Michael Campbell, Powerway; Carl Giosa, Perot Systems Corp.; Jim Kowalski, Manugistics Inc.; Kenneth Kratz, Powerway; Doug Maulbetsch, SAP Markets; Wes Shimanek, Intel Corp.; Christopher S. Williams, Ingunuus Inc.

Tuesday April, 9

Logistics

Session Code: SC3
Wednesday April, 10

Retaining your Workforce
Session Code: WF4
Room 101A

Logistics is an integral part of every manufacturing facility. This session will help attendees make intelligent decisions on the simplest and most cost effective ways of scheduling, shipping and movement of materials.

Organizers - Dale Albert Page, Bax Global

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<tr>
<th>Time</th>
<th>Paper No.</th>
<th>Title</th>
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<tbody>
<tr>
<td>3:45 p.m.</td>
<td>ORAL ONLY</td>
<td>The Dichotomy of Optimum Supply Chain Inventory Levels Versus Premium Transportation on International Procurement. Barry McNeil, Dale Albert Page, Bax Global</td>
</tr>
<tr>
<td>4:45 p.m.</td>
<td>ORAL ONLY</td>
<td>Supply Chain Improvement and the Factory                               Dale Brubaker, Operations Associates</td>
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</tbody>
</table>

Wednesday April, 10

Clean Air Act Update and Workable Solutions for Permitting Requirements
Session Code: WF5
Room 101A

This session will be a panel discussion of current and proposed Clean Air Act requirements and their potential impact on industry. In addition, panelists will discuss ways for industry to secure permits in a timely manner.

Organizers - Heidi B. Grant, South Carolina Dept. of Commerce
Wednesday April, 10

**Plenary Panel - Build to Order, Challenges of Today & Tomorrow**

**Session Code:** PAN2  
**Room 102A, 102B**  
**Session Time:** 10:30 a.m.

Creating the ability to quickly respond to individual consumer orders with lower cost and less inventory presents a host of challenges for OEM’s and their entire supply chains. This panel will explore these challenges from the perspectives of the OEM, and both Bulk & Sequenced Suppliers and discuss their ideas on overcoming these problems.

**Organizers -** Oliver Hazimeh, Robert W. Pethick, PRTM  
**Moderators -** Robert W. Pethick, PRTM  
**Panelists -** Reinhard Roehrl, BMW Manufacturing Corp.; Roy Vasher, Toyota Motor Manufacturing NA Inc.; Billy Williams, Lear Corp.; Richard Zehntner, DAA Draexlmaier Automotive of Amer LLC

Wednesday April, 10

**The Live, Hands-on, Lean Factory Simulation - Part 2 - Implementing Solutions on the Factory Floor**

**Session Code:** LN5  
**Room 102C**  
**Session Time:** 2:00 p.m.

This session serves as the logical climax to the previous sessions in the Lean Implementation track. Once again the Live Lean Factory working model is run, this time illustrating a lean "pull" facility. Within the context of this demonstration, Just-in-Time manufacturing will be demonstrated. Seven key areas of lean and agile manufacturing improvements will be highlighted in the demonstration. These areas include: reducing cycle times, reducing work in process inventories, reducing total manufacturing cost, minimizing paper work on the factory floor, increasing productivity, reducing scrap and rework, and reducing material handling and storage.

**Organizers -** Richard Scimeca, Ghafari ESG L L C  
**Moderators -** F Roy Piciacchia, Lockwood Greene Engineering Inc.

Wednesday April, 10

**X5 and New 7 Series - Part I**
Learn more about the technical features just hitting the production floor

**Organizers** - Eckhard Hommrichhausen, BMW Manufacturing Corp.

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<tr>
<th>Time</th>
<th>Paper No.</th>
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</table>
| 8:30 a.m.| ORAL ONLY   | The Capability of the X5-Platform: 4x4 Performance from 190 to more than 700 DIN-HP  
Eduard Walek, BMW AG |
| 9:00 a.m.| ORAL ONLY   | BMW X-5 Safety                                                       |
|          |             | Martin B. Rapaport, BMW of North America LLC                        |
| 9:30 a.m.| ORAL ONLY   | The New 7 Series: The Intuitive User-Interface iDrive               |
|          |             | Michael Herrler, BMW AG                                             |

**Wednesday April, 10**

Exciting BMW Highlights: The New 7 Series - Part II

**Session Code:** MP5

**Room 103**

Learn more about the technical features just hitting the production floor.

**Organizers** - Eckhard Hommrichhausen, BMW Manufacturing Corp.

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<tr>
<th>Time</th>
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<tr>
<td>2:00 p.m.</td>
<td>ORAL ONLY</td>
<td>The New Way of Electrical Integration</td>
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<td>Axel Deicke, BMW Group</td>
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<td>2:30 p.m.</td>
<td>ORAL ONLY</td>
<td>The New V8 Engine with VALVETRONIC</td>
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<td>Wolfgang Wukisiewitsch, BMW Group</td>
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<tr>
<td>3:00 p.m.</td>
<td>ORAL ONLY</td>
<td>The New Active Roll Stabilization of the New 7 Series from the BMW Group</td>
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<td>Michael Strassberger, BMW AG</td>
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**Wednesday April, 10**

Making a Case for Lean

**Session Code:** LN4
Room 104A  
Session Time:  8:30 a.m.

LeanSigma utilizes six sigma tools and lean principles to reduce defects at the speed of Kaizen. It will help drive out variation in all processes along the value stream, from the front offices to the shop floor. Using kaizen interventions, LeanSigma black belt projects are finished in six weeks instead of six months. Fast results stimulate organizational buy-in and drive your culture change. Associates choose the right tool for the application to problem-solve more effectively. One integrated improvement program ensures one consistent message to all employees.

Organizers -  David Rucker, TBM Consulting

<table>
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<tr>
<th>Time</th>
<th>Paper No.</th>
<th>Title</th>
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| 8:30 a.m. | 2001-01-3710 | Combining Lean and Six Sigma: The LeanSigma (sm) Improvement Process  
Bonnie Smith, TBM Consulting |
| 8:50 a.m. | ORAL ONLY     | Are you Truly Ready for B2B Supply Chain Management  
Robert Handfield, North Carolina State Univ |
| 8:30 a.m. | ORAL ONLY     | Economic B2B Technologies for Automotive Suppliers  
Ted Ramstad, Essential Markets |

Wednesday April, 10

Are you Truly Ready for B2B Supply Chain Management?
Session Code:  SC5

Room 104B  
Session Time:  8:30 a.m.

More companies restructure their business every day to be able to function in the era of electronic commerce. Many managers are struggling to develop a comprehensive strategy for success in this new market environment. The deluge of information about dot.coms, servers, online supplier and customer linkages, and B2B (business to business) requirements can be overwhelming. And automotive OEM's are increasingly asking their suppliers to be ready to do business on the web. What does this mean for you? In this session, we provide information that can help automotive suppliers understand: 1) how to re-structure business processes for the B2B environment, 2) new information technologies to help suppliers connect with automotive OEM's, and 3) the implications of the emerging hybrid "build to order" delivery model emerging in the automotive industry.

Organizers -  Robert Handfield, North Carolina State Univ.

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<tr>
<th>Time</th>
<th>Paper No.</th>
<th>Title</th>
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| 8:30 a.m. | 2001-01-3710 | Are you Truly Ready for B2B Supply Chain Management  
Robert Handfield, North Carolina State Univ |
| 8:50 a.m. | ORAL ONLY     | Economic B2B Technologies for Automotive Suppliers  
Ted Ramstad, Essential Markets |
CAx Technology and Supplier Collaboration with BMW

**Session Code:** SC4

**Room 104B**

Virtual vehicle building with CAx process technology at BMW makes geometric, functional and production safeguarding possible and is an important step towards improving product quality. The development and production of vehicles is unthinkable today without the collaboration of highly qualified suppliers and OEM's, and the integration of suppliers into the CAx process at BMW is a high priority.

**Organizers** - Robert W. McDaris, BMW Manufacturing Corp.

<table>
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<tr>
<th>Time</th>
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<tr>
<td>9:10 a.m.</td>
<td>ORAL ONLY</td>
<td>Manufacturing Drives the Hybrid Delivery Model</td>
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<td><em>Darren Cooper, Manugistics Inc.</em></td>
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<tr>
<td>9:30 a.m.</td>
<td>ORAL ONLY</td>
<td>Accelerated Manufacturing - Blue Prints for Competitive Solutions</td>
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<td><em>Wes Shimanek, Intel Corp.</em></td>
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<tr>
<td>2:00 p.m.</td>
<td>ORAL ONLY</td>
<td>CAx Technology and Supplier Collaboration with BMW</td>
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<td><em>John Thaiss, BMW Manufacturing Corp.; Wilhelm Kerschbaum, BMW AG</em></td>
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