FIND YOURS.

LATEST & GREATEST INDUSTRY INNOVATIONS

Presented by:

MHI Solutions Community
Christian Dow
President
Panther Industries

David Schwebel
Vice President
Swisslog

John Hill
Director
St. Onge Company
The fifty-seven (57) MHI’s Solutions Community members are industry thought leaders on automation, software, equipment and services that support a fully integrated supply chain. The Community includes suppliers, integrators, consultants, media, academia and end-users.

MHI’s Solutions Community mission is to provide a unique venue where equipment, systems and service suppliers can collaboratively work with users to improve the marketplace for all. The Community provides a Safe Harbor environment for open discussion of material handling equipment types, technologies, systems, best practices and lessons learned.
SESSION OBJECTIVES

Establish the Solutions Community as your “safe harbor” resource for exchange of non-commercial information and guidelines on proven technology, equipment & systems to address material handling & supply chain challenges & opportunities.

Highlight current Solutions Community member company innovations at Promat 2019.
# SLIDE #  | PROMAT '19 Booth | COMPANY (Alphabetical) | PRODUCTS & SERVICES
--- | --- | --- | ---
1 - 6 | Solutions Community Introductory Slides | | |
7 | S3152 | Agile Business Media | DC Velocity Magazine
8 | S5127 | AHS, LLC | Systems integrator
9 | S4143 | Associated | Fleet optimization solutions.
10 | S4479 | Aware Innovations / Evanhoe Associates | IT Systems Integrator
11 | S4826 | Banner Engineering Corporation | Photoelectric, ultrasonics and safety light curtains
12 | S1618 | Battery Watering Technologies | Watering systems for lead acid batteries
13 | S2918 | BEUMER Group |  
14 | S3918 | CCS, Inc. | Sortation and distribution systems
15 | S3918 | CubiScan - Dimensioning & Weighing Systems | Cubing & weighing systems
16 | S659 | Daviau North America | Material handling equipment & system integrator
17 | S2903, S3263 | Dematic | Automated Material Handling Systems
18 | Eaton | Comprehensive control solutions that support cr  
19 | S4351 | Electric 80 Inc. | Palletizing & robotic material handling solutions
20 | S2459 | Elite Storage Solutions, LLC | Pallet Rack Systems Manufacturer
21 | S4356 | Five Inforatics Corp. | Automated sorting systems for material handling
22 | S4294 | FOX IV Technologies Inc. | Automated labeling systems and RFID solutions
23 | S4296 | Frazier Industrial Company | Pallet rack storage systems
24 | S3641 | Grenzebach Corporation | Automation systems integrator
25 | S4572 | HighJump | Supply chain execution, warehouse management
26 | S5681A | Honeywell Intelligent | Integrated material handling systems and products
27 | N7045, S1381 | Husky Rack & Wire | Pallet racks, boltless wire partitions
28 | Hytrol | Conveyors, sortation equipment, integrated syst  
29 | S3903 | Intricon, LLC | Global provider of conveyance solutions.
30 | S2416 | JBT Corporation | Automated material handling, AGVS, SGVS
31 | S2379 | JDA Software | Supply Chain Systems Solutions
32 | S6335 | Kardex Remstar, LLC | Manufacture vertical carousels, automated retail
33 | S1231 | KNAPP Inc | Conveyor, robotic picking, software solutions &  
34 | S2422 | Lenze Americas | Gearboxes, inverters and brakes
35 | S449 | Mallard Manufacturing Corporation | Gravity flow conveyor products
36 | S3484 | Tecosys Inc. | Warehouse management systems
37 | S1031 | UNEX Manufacturing, Inc. | Conveyor - carbon flow rack
38 | S4215 | VAHLE Inc | Electrification components, positioning, and data communication systems
39 | S2031 | Vanderlande Industries, Inc | Material Handling Solutions
40 | S4207 | viastore SYSTEMS Inc. | ASRS and Warehousing Management Systems
41 | S415 | WIPOTEK-OCS, Inc. | Weighing Systems for the Mail/Logistics Industry
42 | S1918, S3468, S2018 | Schaefer Systems International, Inc. | Automated material handling systems
43 | S2715 | Schmalz Inc. | Vacuum handling equipment & vacuum components
44 | Schneider Electric | Power, control & automation products
45 | S1941 | Sealed Air | Automated fulfillment solutions, protective packaging systems, digital-enabled services
46 | S418 | SEW-Eurodrive, Inc. | Parallel & right angle gearmotors & reducers, speed drives
47 | S4506 | SICK, Inc. | Photoelectric sensors, safety systems, auto id
49 | S5231 | SI Systems | Automated material handling systems
50 | S2055 | Sotheon | Supply chain management software
51 | S655 | Speedrack | Pallet rack & storage systems
52 | S1605 | St. Croce Company | Supply Chain Facility & Systems Design, Engineering & Integration Management
54 | S1212 | Swiss Logistics Automation | Warehouse & distribution automation software
55 | Symboitic, LLC | Integrated chain automation solutions for warehouses & distribution centers
56 | S3464 | Tecosys Inc. | Warehouse management systems
57 | S1031 | UNEX Manufacturing, Inc. | Conveyor - carbon flow rack
58 | S4215 | VAHLE Inc | Electrification components, positioning, and data communication systems
59 | S2031 | Vanderlande Industries, Inc | Material Handling Solutions
60 | S4207 | viastore SYSTEMS Inc. | ASRS and Warehousing Management Systems
61 | S415 | WIPOTEK-OCS, Inc. | Weighing Systems for the Mail/Logistics Industry
62 | S1918, S3468, S2018 | Schaefer Systems International, Inc. | Automated material handling systems
63 | S2715 | Schmalz Inc. | Vacuum handling equipment & vacuum components
64 | Schneider Electric | Power, control & automation products
65 | S1941 | Sealed Air | Automated fulfillment solutions, protective packaging systems, digital-enabled services
66 | S418 | SEW-Eurodrive, Inc. | Parallel & right angle gearmotors & reducers, speed drives
67 | S4506 | SICK, Inc. | Photoelectric sensors, safety systems, auto id
69 | S5231 | SI Systems | Automated material handling systems
70 | S2055 | Sotheon | Supply chain management software
71 | S655 | Speedrack | Pallet rack & storage systems
72 | S1605 | St. Croce Company | Supply Chain Facility & Systems Design, Engineering & Integration Management
73 | S4468 | StreamTech Engineering | Distribution and manufacturing automation.
74 | S1212 | Swiss Logistics Automation | Warehouse & distribution automation software
75 | Symboitic, LLC | Integrated chain automation solutions for warehouses & distribution centers
Provides real-time status, settings, and key performance statistics for Predator and Phantom print-and-apply products via interactive reports and visual dashboards.

- Downtime and operation metrics for proactive management of the system, maintenance response times, and personnel performance.

- Embedded within each print-&-apply product and accessed via the end user’s internal network on any device (desktop, laptop, tablet, smartphone).
The *OutdoorScan3* Safety Laser Scanner enables safe operation of automation, even in rain, snow, fog and bright sunlight. More efficient use of space for safe human and machine collaboration outdoors on mobile platforms, e.g., AGVs/AGCs.
FROM PILLS & CARTONS TO CANOES

Fifteen (15) dimensioning devices for a wide array of handling & shipping applications. Accurate weight & dimensional data permit optimal slotting, right-sized packaging, void fill, corrugated material reduction, lower shipping costs – while improving freight bill accuracy.

Booth S2912
Application enables associates to buy parts & supplies directly from the shop floor, the field or another fulfillment center. Quick Response (QR) codes are applied to items, HMIs, racks and part storage bins for reading by smart phones or imagers. Once scanned, orders are generated and automatically emailed to suppliers with validated item numbers and part descriptions.
A secure, comprehensive IoT maintenance support service that ensures stable operation of cloud-connected printers & minimizes unexpected downtime.

- Tracks printer operating status in real-time & provides automatic error notifications.
- Frees up IT resources & reduces downtime through printer status tracking & error reporting.
- Improves visibility / efficiency of all supported printer models
- Cloud-based architecture provides visibility regardless of location*
Regenerative VFD’s are used to manage the energy load on powered material handling equipment.

- Apply to AS/RS systems, downhill conveyors, and other applications with high deceleration rates to limit your equipment’s overall energy costs.

- LCD screens within VFDs and PLCs provide diagnostic and trouble-shooting capabilities in plain-text English (or language of choice) at the component level!

Booth S2447
Compact intelligent electric vacuum generators

Vacuum grippers on mobile platforms run off battery power

Used on Cobots mounted to mobile platforms and eliminate compressed air line requirements

Booth S2715
From buckets to tires to rolls and spools, this device sorts items weighing up to 150 lbs. and as long as 8-feet that are typically **too large, heavy, or oddly shaped** for conventional sortation equipment, thereby eliminating the need for manual handling and manipulation.
PALLETIZING & DEPALLETIZING
With Robotics and Vision Technology

Layer building or removal of intermixed cases and boxed products of various sizes using advanced vision algorithms to identify products and pick or move them in accordance with software configurable rules. Improves throughput with high-speed automation, yielding palletized layers for quick deployment to operators.

Provides operational efficiency & lower costs with improved space utilization. Designed for deployment in e-commerce distribution & fulfillment centers.

Booth S3918
AMR navigate with maps constructed by software on-site using laser scanners or with pre-loaded facility drawings.

- AMR offer solutions readily adaptable to client warehouse order processing and shipping requirements.
- AMR increase throughput and reclaim floor space, provide reliability and cadence for material flow and improve availability and effectiveness of equipment, processes & team.
- AMR help to reduce buffer sizes, WIP and on-hand inventory through smaller, more frequent deliveries.

Booth S1841
ONE INVENTORY ENGINE
MULTIPLE PICK OPTIONS

- Goods-to-person picking at workstation, batch pick from side port to pick cart and robotic pick from side port.

- High density, small footprint, pre-engineered module can fit into back of retail store, or distribution center.

- Share inventory over multiple-channels while optimizing labor productivity.

Booths S2903 & S3203
This Control Tower system enables warehouse, distribution center and fulfillment operations in real time by leveraging big data and machine learning and using analytics, predictive modeling, IoT and artificial intelligence (AI) for:

- Managing people, space, mechanization, and equipment & system maintenance.
- Significantly reducing overall operating costs.
- Monitoring key performance metrics.
- Planning and scheduling process enhancement.
- Delivering execution advice in real time.
- Optimizing operations with “as-you-go” using self-learning features.
POP-UP FULFILLMENT CENTERS

- Weather-proof modules used for building urban fulfillment centers anywhere.
- Distribution centers can be reconfigured overnight by adding or removing modules.
- Storage modules can be pre-filled centrally, or replenished locally, driven into the city and linked to the urban DC.
- Dedicated modules handle vehicle loading, consumer pickups, cold environments, box erecting, etc.

Booth S1212
POP-UP FULFILLMENT CENTERS

The container based warehouse

FIND YOUR WOW
Position your business for a more agile warehouse and autonomous supply chain with a cognitive, connected platform.

The software analyzes your warehouse environment and identifies specific opportunities for optimizing performance with a broad array of targeted productivity tools.

Booth 3979
WAREHOUSE DESIGN TOOLS

**ReCalc:** Calculate “Reasonable Expectancies” for warehouse task execution times by function—and, set KPI targets.

<table>
<thead>
<tr>
<th>CHOOSE THE KPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiving (Unloading)</td>
</tr>
<tr>
<td>Putaway</td>
</tr>
<tr>
<td>Replenishment</td>
</tr>
<tr>
<td>Order Pick</td>
</tr>
<tr>
<td>Case Picking</td>
</tr>
<tr>
<td>Full Pallet Picking</td>
</tr>
<tr>
<td>Packing</td>
</tr>
<tr>
<td>Stretch wrapping</td>
</tr>
<tr>
<td>Auditing</td>
</tr>
<tr>
<td>Shipping (Loading)</td>
</tr>
</tbody>
</table>

**Conflict & Interference Avoidance Modeling**
Merge architectural, mechanical, HVAC, electrical, plumbing & MH drawings into 3-dimensional models to analyze, detect & correct layout/design flaws before construction or retrofit begins.

Booth 1855
MHI’s **new** Robotics Group (TRG) members include leading manufacturers, integrators, consultants, & component suppliers of robotic solutions designed specifically for warehousing & distribution applications.

**TRG programs include:**
- The development of educational and training materials;
- A voice in the development and maintenance of national and international standards;
- Communication of the benefits of robotic and automated solutions via trade shows, educational forums, and other national and regional seminars.

[www.mhi.org/robotics](http://www.mhi.org/robotics)
Thank you for being with us today!

We’d also like to invite you to join us at MHI’s Annual Conference in Palm Springs

**October 14 – 16, 2019.**

John Paxton (jpaxton@mhi.org)

All seminars will be available to download in late May at [www.promatshow.com/education/seminars](http://www.promatshow.com/education/seminars)
For More Information

Christian Dow ~ cdow@pantherlabel.com
www.pantherlabel.com

John Hill ~ jhill@stonge.com
www.stonge.com

David Schwebel ~ david.schwebel@swisslog.com
www.swisslog.com