

# *The Future of Distribution Management*

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Presented by:

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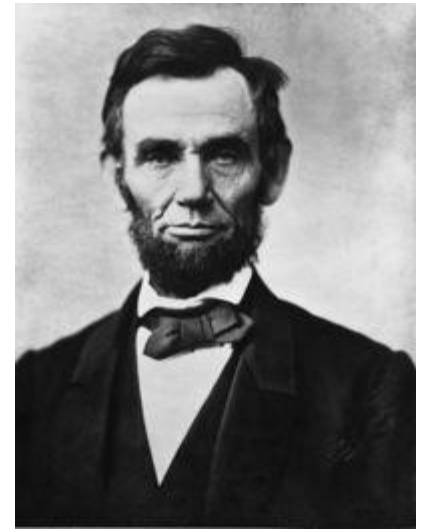
# The Future...



# The Future...

“The best way to predict your future is to create it”

***Abraham Lincoln***



# Agenda

- Distribution Management
- Near Term Value Opportunities
- Predictions For The Future

# One Definition of Distribution Management

## *Core Elements:*

- Warehouse Management
  - Inventory Management
  - Order Management
- Yard Management
- Appointment Scheduling
- Transportation
  - Rating, Routing, Load Building, Execution
- Labor Management
- Slotting Optimization

# High Value Opportunities for the Near Term

## Improve Vendor Collaboration

- Electronic advance ship notices (ASNs), including matching product labeling
- In-line vendor performance data capture and report cards
- Dynamic quality inspection based on vendor performance
- Improve labor planning and dock planning
- Significantly reduce receiving efforts (time, labor, space)
- Allocate in-transit inventory to increase turns

# High Value Opportunities for the Near Term

## Dynamic Inventory Disposition in the DC

- View each inventory handling event as an opportunity to match the inventory to the most optimal and “forward” need possible
  - Order fulfillment
    - Cross-dock or bulk need for multiple orders
  - Task swapping
  - Put away to a forward location for immediate processing
  - Quality inspection / sampling
  - Optimal reserve storage

# High Value Opportunities for the Near Term

## Intelligent Tasks & Auto-Task Management in the DC

- Configuration-driven assembly of inventory movements into better, multi-purpose tasks
- One location visit to retrieve inventory for multiple needs
- Pick path optimization based on order pool and objectives
- Automatic task pool management
  - Task release
  - Task creation – cycle counting, top-off replenishments, movements
  - Priority evaluation and priority adjustments



# High Value Opportunities for the Near Term

## Leverage Labor Management & Slotting Optimization

- Set performance expectations for your associates
- Capture and monitor performance data
- Build a base and a culture around labor management
- Set the stage for more advanced options such as pay-for-performance, labor planning, and labor scheduling
- Utilize purpose-built inventory slotting algorithms to ensure that products are optimally placed in the DC
- Leverage a WMS tasking architecture to execute the product re-slotting movements

# The Future of Distribution Management

## Ship / Fulfill from Anywhere... Omni-Channel

- Requires three key things:
  - Accurate, low-level inventory visibility in a single application
    - Including inventory at vendors, in-transit, in warehouses, in hubs, in partner locations, and in stores
  - Order management / order routing
  - Order fulfillment – even in the store – including prioritization, mobile workflows, packaging instructions, and transportation
- The key is doing the above ***efficiently & profitably***

# The Future of Distribution Management

## The “Return of Returns”

- The rising importance of efficient reverse logistics processing
- With growing direct-to-consumer shipping, comes increased returns
- Many opportunities:
  - Returns documentation sent with the order
  - Initiation/injection options for the return
  - Dynamic routing of the returns package
  - Returns disposition processing
  - Rapid asset recovery

# The Future of Distribution Management

## Advanced Order Pool Modeling

- What-if scenarios for order processing in the DC
  - Including comparison of alternatives and execution
- Orders to include/exclude
- Order fulfillment strategy alternatives
- Impact of key variables such as equipment, personnel, groupings, pick paths, pick density, etc

# The Future of Distribution Management

## Transportation Industry Integration – Next Level

- Numerous opportunities given widespread adoption of in-cab technologies
- Automated tender and appointment scheduling/requests
- Streamlined yard check-in/out
- In-route arrival and/or capacity updates (to DC)
- In-route readiness and/or freight updates (from DC)
- Delivery estimates and delivery confirmation
- Increased back haul options

# The Future of Distribution Management

## Next-Gen Business Intelligence for the Supply Chain

- Data warehousing with general historical analysis
- Predictive features
- Total cost to serve
- Enterprise social media
- Continued advancement and adoption:
  - Alerting
  - Closed-loop analytics
  - Self-service reporting
  - Reporting on mobile devices

# The Future of Distribution Management

## Software Technology

- Mobile – for execution, visibility, & reporting
  - Including tablets & purpose-built for touch
- Cloud = easy to provision and easy to access
- Tools – beyond just the core software or hardware
  - More tools for more parties, i.e. customers, implementers, partners, non-IT
  - Self-service, simple to install, support, extend, & upgrade
- Standards / table stakes
  - Programming languages, extensibility, user interface, and deployment alternatives
- Shared Elements / Platforms
  - More mature and efficient, with less integration cost/risk

# The Future of Distribution Management

## More Automation in the DC!

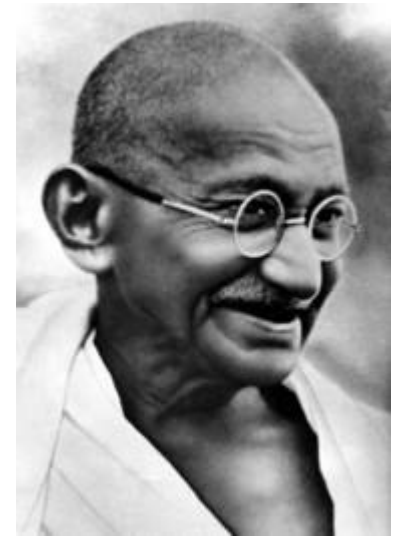
- Robotics
- Unit sortation – the continued rise of direct-to-consumer / on-line order fulfillment
- Data capture options & multi-modal devices
  - Imaging, voice, RFID, etc
- All of this will drive the need for even more open software solutions and integration options



# The Future...

“The future depends on what you do today.”

***Mahatma Gandhi***



**HAVE A GREAT DAY – TODAY!**

**Thank You**

## *For More Information:*

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