DIGITAL INVENTORY
Powered by Robots & Drones

Presented by:
Matt Yearling
CEO, PINC
QUESTIONS:

• What is your…
  – % of Inventory in Transit vs Storage?
  – % Spend on Transportation vs Warehouse?
  – % Headcount of Transportation vs Warehouse?
  – % of Manual Inventory Checks?
  – Inventory Accuracy %?
ANSWERS:

- 90% Inventory is in Storage
- 66% Spend is on Transportation
- 90% Headcount in Plants & Warehouses
- >90% Inventory Checks are done Manually
- 89% - 99% Inventory Accuracy in Warehouses
- <60% Inventory Accuracy in Stores
The supply chain industry is going through a transformation because customers’ expectations are changing and labor is hard to find and retain.

SOURCE: MHI AND DELOITTE
VELOcity COMES WITH ACCURACY
INVENTORY ACCURACY IS STILL A MANUAL PROCESS
AUTOMATE THE DIGITIZATION OF THE INVENTORY

IDENTIFY
Inventory identification using RFID, barcode, text, deep Learning computer vision or active tag

LOCATE
Low cost & very robust sensor platform to pinpoint inventory whereabouts in 3D

ORCHESTRATE
Powerful process automation engine requiring minimal human intervention

AUGMENT
Simple real-time integration to existing systems delivers increased value to current investments
DIGITAL TRANSLATION OF PHYSICAL ENVIRONMENT
SENSOR PLATFORMS ON MOBILE VEHICLES
ALGORITHMS DETERMINE INVENTORY LOCATION
AERIAL ROBOTS FOR INVENTORY TRACKING

Automatic, accurate, efficient, and safe inventory checks in hard to reach locations.
INDUSTRIAL REVOLUTION 4.0

- Autonomous Vehicles and Robots
- Sensor Fusion
- Deep-Learning Computer Vision
- Machine <> Human Collaboration
- Big Data & Artificial Intelligence

1st
Mechanization, water power, steam power

2nd
Mass production, assembly line, electricity

3rd
Computer and automation

4th
Cyber Physical Systems

Picture by Christoph Raser
WHY DRONES?

Gartner

Predicts 2017: Drones

Published: 29 December 2016    ID: G00316163

Analyst(s): Gerald Van Hoy | Brady Wang

Summary

Drones are becoming a vital tool for enterprises. They can be an IoT endpoint, a collector of IoT data, and carry out delivery and other key functions.
VIDEO
For More Information:

Speaker email: matt@pinc.com
Website: www.pinc.com

DEMO:
Theater B: Improving Inventory Accuracy with Aerial Inventory Robots (Drones) –
Thursday, April 12, 2018 @ 12:45 PM - 1:30 PM

Or visit MODEX Booth B2620