

Top 10 Reasons To Automate

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The
Automation
Alliance

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Automation Alliance

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Automated Storage/Retrieval Systems



Automatic Guided Vehicle Systems



Conveyor & Sortation Systems



Integrated Systems & Controls Council



Order Fulfillment Solutions

Is your operation...?

- Fully automated
- Semi automated
- Not automated

What are the reasons your
company is considering
automation?

Influences on Facility Automation

in Manufacturing, Warehousing, & Distribution

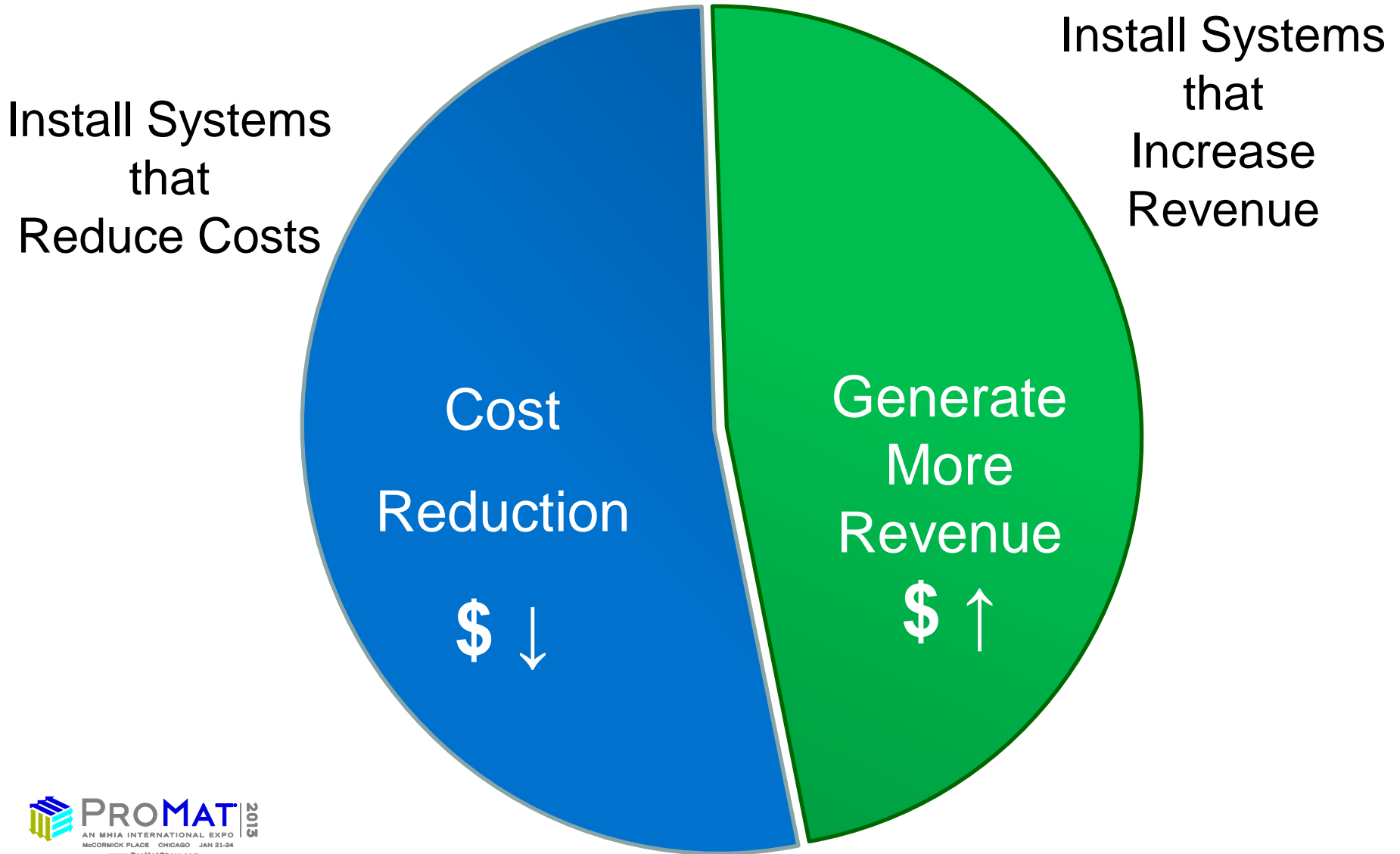
1. Cost justification
2. Labor savings
3. ROI
4. Time Savings
5. Productivity
6. Economy
7. Accuracy/Speed
8. Throughput
9. Customer/Business Demands
10. Efficiency

Top 10 Reasons to Automate



Top 10 Reasons to Automate

Maximizing ROI?



Project Goals that Increase Revenue

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4. Increase Throughput = increase total business volume = increase revenue

*Bonus – Increase Customer Satisfaction

Automation Equipment that Increases Revenue

1. Increase Pick Rate – Goods to Picker, Pick to Light
 2. Increase SKUs Quantity – ASRS, Carousel
 3. Extend Daily Order Cutoff Time - Sortation
 4. Increase Throughput – WMS/WCS, conveyors
- *Bonus – Increase Customer Satisfaction

Project Goals that Reduce Costs

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2. Reduce Labor Content = Fewer Full Time Employees FTEs = Cost Reduction

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6. Improve Safety/Ergonomics = Reduction in lost time and claims = Cost Reduction

Automation Solutions that Reduces Costs

1. Increase Picker Productivity – Goods to Picker
2. Reduce Labor Content - AGVs
3. Green Solutions – Integrated/balanced/sized correctly
4. Reduce Errors - Pick to Light
5. Reduce Damage – Automated trailer loading
6. Improve Safety/Ergonomics – Goods to Picker

Revenue, Service and Other Benefits of Automation

- Extended order cut off time
- Improved accuracy
- Increased capacity
- Safety and Ergonomics



Extended Order Cut Off Time

- Reduction in non-picking work time
- Reduced order fulfillment cycle time
- More orders completed before trucks leave
- Improved same day or next day shipments
- Better customer service
- E-com critical
- More revenue



E-commerce

The Issues:

- **Order processing speed, accuracy**
- No real time system monitoring
- No capacity for growth

The Solution:

- **Zone routing pick system, WCS, light directed**
- Convey & sort system w/discrete order picking
- Processes up to 18,000 orders per day



The Results:

- More volume increases efficiency (same # of staff can accommodate)
- **More orders shipped at ground rate (3 day promise)**
- Real time order tracking & pick accuracy
- **Time to process order: 20 minutes (average)**
- One shift (less employee turnover)
- Fast learning curve, fast fix process for pick errors
- Replenish during picking
- System capacity: 4 times previous

Improved Accuracy

- Goods-to-Person picking solutions
- Paperless picking via voice and lights
- Better customer service
- E-com critical
- Fewer lost customers
- More revenue



Beverage Distributor

Issues:

- Warehouse space
- SKU growth (over 1000)
- Inventory growth
- Inefficient pick process
- Increasing fixed & variable costs

Solution:

- Picking software
- **Voice directed activities**
- Real time visibility, performance reporting

Results:

- **Pick accuracy 99.98%**
- Productivity up 35%
- Real time visibility into operation & staff performance
- Use metrics to motivate staff
- Reduced truck loading time
- From 14.5 FTE to 9 FTE
 - ✓ 1 Truck Loader to 1 Loader/Checker
 - ✓ 2.5 Checkers to ½ Checker
 - ✓ 11 Selectors/Loaders to 8 Selectors/Loaders



Apparel Retailer

Issues

- Person to goods
- Long distances between picks
- Static pick locations
- Temporary labor for seasonal peaks

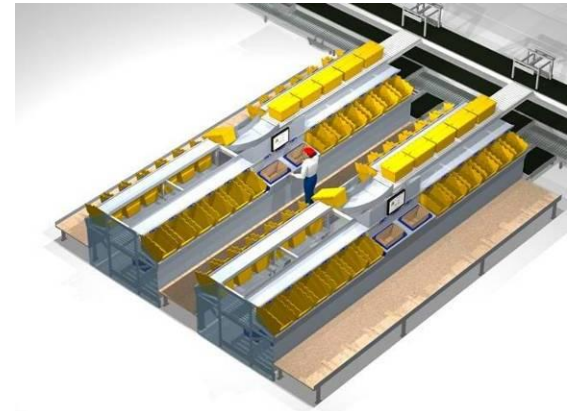
Solution

- **Goods to person configuration**
- **Light directed “Put to store” stations**
- 24 order totes per module
- Light directed, ASRS feed



The Results

- Three fold increase in picking rates
- Capacity to meet peak volumes
- Rates up to 750 – 1,000 items per hour/operator
- 300 – 350 lines per hour/operator
- **Reduction in picking errors**
- Real time monitoring of staff
- 35% reduction in cost per case handled



Increased Capacity

- More SKUs
- More stores
- More dot com orders
- More frequent shipments
- From same, often multichannel facility
- Fewer out-of-stocks
- Less lost sales
- More revenue



Specialty Retailer

The Issues

- Inefficient order fulfillment process
- **Growing SKUs**
- **No capacity to grow**

The Solution:

- **Convey & sort system**
- Dynamic pallet build software

The Results:

- Ability to build store friendly pallets
- **Accommodates more SKUs on the conveyor, profile more SKUs in pick modules**
- Sorter controls can re-route family group SKU to a particular store
- Sorter speed automatically adjusts to throughput saving energy & wear
- Serves 150 stores (250 capacity)
- 30,000 cartons/day (capacity 150,000)
- **1-2 shipments per store per week (average)**
- **3-5 shipments per store per week (high volume stores)**



Educational Book Distributor

The Issues

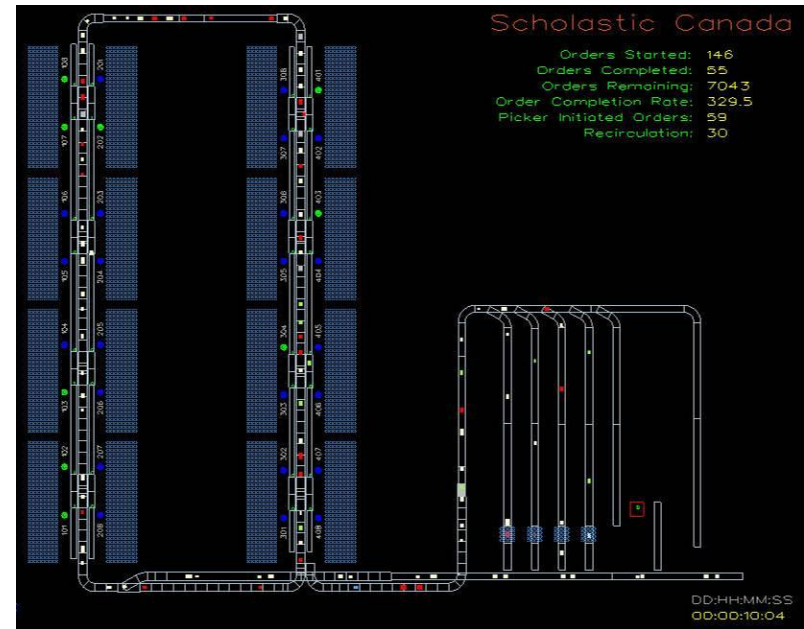
- **Smaller order sizes more often**
- Increasing labor to operate (temps)
- Extending working hours; overtime
- Declining productivity
- **SKU proliferation**

The Solution

- **Zone route conveyor system**
- **Lights for fast movers, Voice for slow movers**
- Inventory control software at pick face
- Workload balancing
- Pick into shipping carton; inline scales for QC & manifesting

The Results

- **Accommodate 20% more SKUs (added new 2500 SKU catalog)**
- **Increased capacity from (8,500 orders / day to 11,000)**
- 30% increase in units per labor hour; 10% decrease in total labor hours
- Real time information: staff, issues, performance



Safety and Ergonomics

- Goods-to-Person picking solutions
- Ergo palletizing stations



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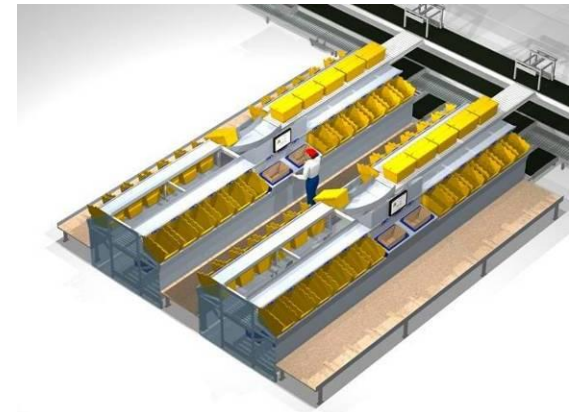
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For More Information:

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