

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

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Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 63  
Average Utilization: 84.8%  
Throughput Increase: 34.2%  
Labor Cost Reduction: 28.5%  
ROI Period: 2.3 years

### Warehouse Performance

Warehouse Location		Capacity Used	Inbound/Day	Outbound/Day	Picking Accuracy	Automation Level	Status
Distribution Center A	Chicago, IL	57.6%	2,182	2,373	98.8%	84.7%	Optimized
	Dallas, TX	46.4%	1,927	3,466	96.2%	84.9%	Optimized
	Atlanta, GA	73.0%	1,328	1,730	96.2%	83.1%	Optimized
	Los Angeles, CA	137.8%	1,788	2,019	98.0%	93.8%	Optimized
	Newark, NJ	41.4%	2,250	3,817	95.9%	77.7%	Improvement Needed

### Optimization Opportunities

- Deploy 5 additional AGVs in Warehouse 3 to increase throughput by 20%
- Implement voice-picking

system to  
improve  
accuracy to  
99.8%

- Upgrade WMS integration for real-time inventory visibility

- Add automated sortation system for small package handling

- Implement predictive analytics for demand-based staffing

- Consider AS/RS system for high-velocity SKUs