

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

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Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 44  
Average Utilization: 87.9%  
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	45.6%	1,793	3,961	95.1%	90.1%	Optimized
	Dallas, TX	89.7%	2,547	2,546	98.0%	91.1%	Optimized
	Atlanta, GA	55.6%	2,500	2,045	97.4%	87.8%	Optimized
	Los Angeles, CA	119.1%	2,752	2,400	96.8%	94.1%	Optimized
	Newark, NJ	65.5%	2,746	3,372	96.0%	76.5%	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