# Warehouse Automation Analytics

*Performance metrics and automation optimization insights*

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Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5
Total Robots: 48
Average Utilization: 86.9%
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 | 52.6% | 1,818 | 3,368 | 96.8% | 81.6% | Optimized |
| Distribution Center B | Dallas, TX | 47.5% | 1,213 | 2,746 | 99.4% | 93.1% | Optimized |
| Distribution Center C | Atlanta, GA | 93.4% | 2,984 | 1,617 | 97.3% | 91.9% | Optimized |
| Distribution Center D | Los Angeles, CA | 58.1% | 1,169 | 3,700 | 96.1% | 74.4% | Improvement Needed |
| Distribution Center E | Newark, NJ | 100.5% | 2,441 | 1,699 | 97.6% | 93.7% | Optimized |

## 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