

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

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Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 38  
Average Utilization: 88.9%  
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     | 94.6%         | 1,981       | 3,007        | 96.0%            | 88.1%            | Optimized |
|                       | Dallas, TX      | 92.7%         | 2,467       | 3,971        | 97.6%            | 90.9%            | Optimized |
|                       | Atlanta, GA     | 68.0%         | 1,199       | 3,292        | 99.2%            | 83.4%            | Optimized |
|                       | Los Angeles, CA | 59.0%         | 1,731       | 1,500        | 98.6%            | 88.2%            | Optimized |
|                       | Newark, NJ      | 77.7%         | 1,338       | 1,881        | 96.7%            | 93.7%            | Optimized |
| Center E              |                 |               |             |              |                  |                  |           |

### 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