



**AUTO
SCHEDULER**

PROCTER & GAMBLE

AutoScheduler Drives Over \$4 Million in Savings with
AI-Driven Warehouse Orchestration

Case Study



Site Details

Procter & Gamble operates a major manufacturing plant in Lima, Ohio, supported by seven nearby satellite warehouses for storage and distribution. This campus handles over 250 outbound full-vehicle shipments daily, with 85% being drop-and-hook and 15% live loads. The plant-attached warehouse serves as a critical link between production and customer fulfillment, managing both raw materials and finished goods in a complex, high-volume environment.

Challenges

Warehouse and campus activity scheduling demanded significant manual effort, compounded by variability in staffing, daily production needs, and volatile production schedules. Planning the flow and sequencing of raw materials into production were also a challenge since the site had storage limitations and constraints. These factors increased planning complexity, often resulting in imperfect schedules that required frequent bring-backs from satellite warehouses to the plant to complete shipments.

Key pain points included:

Raw Materials Firefighting to Support Production:

Manual planning led to suboptimal resource use and hidden costs and production volatility.

Missed Shipments & Fulfillment Issues:

Disconnected processes risked delays and incomplete orders.

Labor Coordination Challenges:

Aligning warehouse tasks with production variability was time-intensive and error-prone.

Storage and Staging Limitations:

Staging and storage constraints made it difficult for manufacturing teams to sequence the work needed to ensure production was never interrupted by not utilizing just-in-time movements.

Significant Travel Across the Facility:

Inefficient material flow between the plant and satellite warehouses increased shuttle moves and labor effort.

Lack of Visibility Across Systems:

Siloed data between production, warehouse, and logistics systems hindered real-time decision-making.



AutoScheduler Implemented Solution

AutoScheduler.AI deployed its AI-driven warehouse orchestration platform to transform P&G's Lima operations, overlaying seamlessly onto existing WMS and ERP systems.

The solution delivered:

AI-Driven Warehouse Orchestration:

Dynamically optimized labor allocation, inventory workflows, and dock activities in real-time, aligning warehouse operations with production demands.

Real-Time Execution and Adaptation:

Proactively adjusted schedules to handle production volatility, reducing firefighting and ensuring predictable fulfillment.

Seamless Data Harmonization:

Integrated data from WMS, ERP, and production schedules into a unified platform, providing end-to-end visibility and actionable analytics, including precise cost-per-case metrics.

Dynamic Constraint Optimization:

Balanced constraints like dock doors, labor, and equipment to maximize throughput without disruptions.

Optimized Sequencing & Travel Minimization:

Streamlined material flow, reducing unnecessary travel and shuttle moves across the campus.

Key operational improvements included:

- Direct dock shipments from the plant increased from 57% to 83.4%, enabling more efficient factory-to-customer shipping.
- Bring-backs from satellite warehouses dropped from 16% to 8.7%, cutting intra-campus transport costs.
- Workforce planning time slashed from 8 hours to 20 minutes per day with automated, AI-driven scheduling (e.g., "Load Now" button).

Success Metrics

AutoScheduler turned the Lima plant warehouse into a measurable profit driver, delivering over \$4 million in savings and significant operational gains:

Maximized Productivity:

Doubled trucks shipped directly from the plant to customers without increasing network inventory, boosting throughput by 30% during a product crunch.

Predictable Fulfillment:

Reduced cuts, substitutions, and delays, achieving 99%+ on-time shipment performance, aligning with P&G's proven benchmark.

Cost Reduction:

Cut shuttle moves to outside warehouses by nearly 50%, saving on transportation and handling costs.

Hidden Margin Recovery:

Uncovered inefficiencies through AI-driven analytics, providing clear visibility into cost-per-case savings and operational benchmarks.

Enhanced Visibility:

Real-time dashboards and alerts improved decision-making, aligning warehouse and production operations seamlessly.



RESULTS:

\$4+ mil

in total savings achieved

+46.3%

increase in direct dock
shipments

-45.6%

reduction in bring-backs
from satellite warehouses

96%

savings in workforce
planning time

30%

boost of overall
throughput during
product crunch periods

Business Impact

By bridging the gap between production and warehouse operations, AutoScheduler enabled P&G to:

Transform a Cost Center into a Competitive Advantage:

Increased direct plant-to-customer shipments, reducing handling and lead times while maintaining service levels.

Achieve Measurable ROI:

Delivered multi-million-dollar savings through labor efficiencies, reduced shuttling, and optimized resource use.

Support Production Excellence:

Ensured material availability and minimized downtime, keeping production lines running at peak performance.

Why It Matters

P&G's Lima success demonstrates how AutoScheduler solves the unique complexities of plant-attached warehouses—dynamic production schedules, constrained space, and labor variability—turning chaos into flow. As a proven solution developed with industry leaders like P&G, PepsiCo, and Unilever, AutoScheduler drives immediate, measurable results without disruptive system changes.

Ready to Run Smarter?

Every warehouse is unique. Let us help you solve your biggest challenges with solutions tailored to your operations.

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