

MANUFACTURING PLANNING

# Inventory Optimization

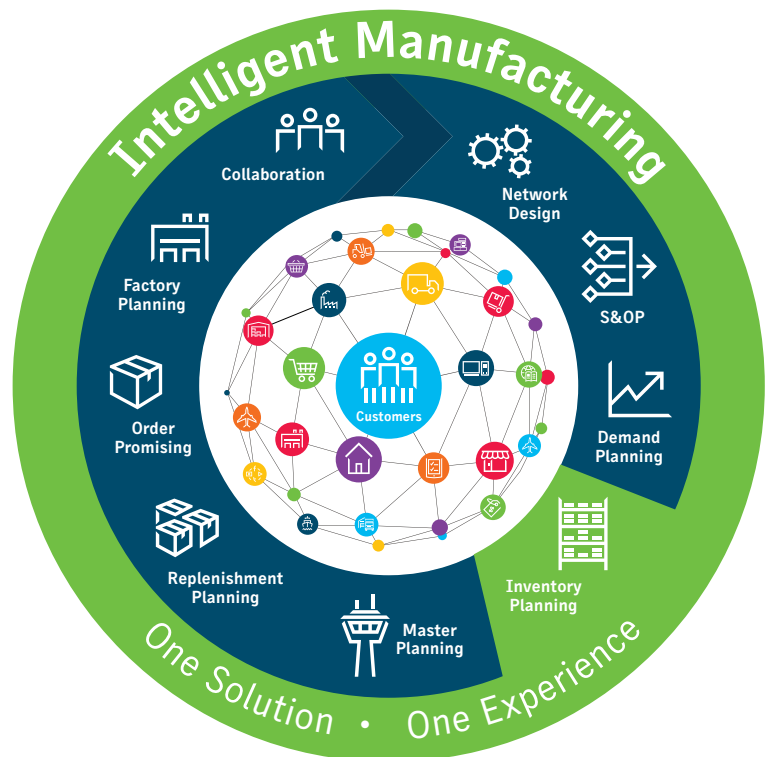
**Challenge: Achieving service level excellence and greater profit in the face of changing market conditions**

Transforming the supply chain into a source of competitive advantage is challenging amid enormous demand variability, elongated lead times, ever-shorter product lifecycles and constantly shifting logistics cost scenarios. To maximize supply chain performance, companies must continually manage a profitable balance among service levels, responsiveness, risk and cost. These performance factors are driven largely by how a company manages supply, production and distribution, and where and how it deploys inventory.

Inventory management, in fact, is perhaps one of the most important aspects of a successful and profitable supply chain, especially in today's digital world. Consistently and profitably delivering service level excellence across multiple channels is becoming more challenging and complex. To create greater efficiencies, more and more companies are adopting a scientific approach to inventory optimization on an ongoing basis.

**Solution: JDA Inventory Optimization**

While many companies have attempted inventory optimization as stand-alone initiatives, the truth is that inventory is just one component of the new global supply chain. Instead of focusing on short-term results, a number of leading companies have leveraged JDA® Inventory Optimization to create and leverage a long-term, sustainable competitive edge, by aligning day-to-day inventory plans with top-level goals on an ongoing basis – and turning this supply chain component into a powerful strategic advantage in a challenging economic climate.



◆ **Key Benefits:**

- Reduces inventory costs and drives service, revenue and growth
- Supports stock keeping unit classification and portfolio micro-segmentation, improving flexibility and accuracy for inventory management
- Increases service levels across all products while reducing inventory investment

Key Benefits continues on next page >



Companies can achieve higher customer service with lower resource investment now. Part of JDA's Manufacturing Planning solution, JDA Inventory Optimization provides innovative, end-to-end capabilities spanning inventory strategy, tactical inventory planning and management of inventory execution.

Make-to-stock or make-to-order, JDA Inventory Optimization can be deployed across various industry sectors — from high-tech manufacturing, semiconductors, food and beverage, consumer durables, consumer electronics, and apparel and fashion, to life sciences and aerospace and defense.

### Optimizing supply chain posture by micro-segmentation

Inventory policies and processes, working together across the global supply chain, define the overall supply chain posture — and also determine how the business will respond to changes in market and supply conditions. With both products and markets growing in diversity, the simple “80/20” or ABC rules are not enough to account for the real differences among inventory types because there is a wealth of subtle distinctions that can't be recognized by such macro numbers. Using JDA Inventory Optimization, leading companies are now slicing and dicing their portfolios along multiple dimensions into new micro-segments that demonstrate the value and impact of each product for the global supply chain. Based on consumption patterns, volume, revenue, margin, cost-to-serve, product maturity, channels, criticality, velocity, seasonality and other key attributes, products are governed by a set of highly customized “designer” supply, demand and inventory strategies that are tailored to each micro-segment.

### Right-sizing inventory across the supply chain to balance risk and reward

Replace traditional statistics, safety stock and spreadsheets with JDA Inventory Optimization to redefine your supply chain inventory performance. This eliminates inconsistent, ad hoc planning and subjective problem solving previously driven by individual planners by leveraging enterprise-level monitoring and optimization, and best-practice algorithms.

#### Key Benefits continued

- Enables multi-echelon inventory optimization, improving accuracy and performance of daily replenishment and inventory planning
- Supports strategic, informed executive decision making via scenario management capabilities
- Manages inventory targets automatically
- Achieves lower landed cost via replenishment interval optimization capabilities

You will increase planning productivity and significantly decrease manual analysis while also benefiting from a low-risk implementation — whether deployed separately or as part of the broader JDA Manufacturing Planning solution.

Powerful optimization algorithms determine service levels and inventory targets for each product location, leveraging demand forecast data, sales history, manufacturing and distribution assets, and transportation networks to consider the total landed cost of inventory — including transportation expenses, handling charges and holding costs — which can change dramatically and swiftly in today's volatile environment. Time-phased execution accounts for demand trends and seasonality effects. Additionally, JDA Inventory Optimization also considers existing multi-echelon network complexity, lead times, costs and constraints, as well as demand and supply variability.

### Managing inventory targets integrated with supply chain planning

JDA's approach is also distinguished by its inclusion of a rigorous, plan-do-check-act (PDCA) process that makes the inventory optimization process incredibly agile, while also monitoring the broader supply chain consequences of any inventory decisions. Because the business environment is continuously changing, adopting the right supply chain posture cannot be a one-time event. Instead, it must be an ongoing process that reflects and responds to changes in the business environment. JDA Inventory Optimization enables best-practice process playbooks and weekly PDCA cycles that keep the inventory strategy on track.



JDA Inventory Optimization can be leveraged separately, or more extensively to handle your daily supply chain planning needs with the broader JDA Manufacturing Planning solution, providing unsurpassed supply chain visibility and optimization, best practices and user-friendly analysis.

### Power the digital supply chain with inventory optimization

By leveraging multi-echelon inventory optimization, companies can improve the accuracy and performance of daily replenishment and inventory planning. JDA Inventory Optimization incorporates scenario management, enabling companies to make strategic, informed decisions that further enhance their inventory control.

Transform your business by using JDA's proven inventory optimization software to:

- Quickly adapt inventory policies and stocking strategies to address changing market conditions, shifting engineering combinations, business objectives, supply chain constraints, customer segmentation and buying behavior
- Eliminate excess inventory and reduce obsolescence costs while maintaining customer service levels
- Develop inventory strategies that maximize the profitability and volume of key products
- Reduce stock-outs and excess exceptions through early warning and performance analysis
- Minimize the gap between the demand and demand satisfied in terms of volume and mix

### Real results

JDA Software helps the world's leading manufacturers, distributors, retailers and suppliers achieve tangible benefits through innovative inventory optimization. Here are some of the actual results that JDA customers have achieved using JDA Inventory Optimization:

- Realized significant improvements in on-time performance and an \$8.8 million payback in the first year
- Achieved a 300 percent return on inventory optimization investment while improving customer service levels
- Strategically positioned inventory ahead of demand to meet customer needs and timeframes
- Moved from a 100 percent manual inventory review to a prioritized, exception-based process, reducing end-to-end target planning, review and approval times by 40 percent
- Lowered inventory costs, raised service levels and implemented flexible postponement strategies and inventory policies that dramatically adapt to business conditions
- Slashed inventory levels by 55 percent — for a cost improvement of \$17 million — coupled with a 20 percent reduction in stock-outs and a 20 percent reduction in excess inventory, in just 90 days
- Reduced inventory up to 40 percent, realized \$4 million in annual savings, and increased forecast accuracy to more than 85 percent
- Micro-segmented the entire product portfolio by volume, demand variability, lifecycle stage and margin, resulting in higher profitability as well as better worldwide utilization of plant capacities, raw materials and other resources



- Implemented a system of bi-weekly parts forecasting — matched with daily replenishment planning — to ensure that spare parts inventory could be managed with greater agility and accuracy across the entire global supply chain
- Doubled inventory turns while realizing significant improvements in product availability and customer service metrics
- Created a new optimized postponement system in which work-in-process inventories are held strategically at various positions in the global supply chain, leading to reductions in overall inventory, cost and product assembly cycle times while ensuring high customer fill rates

### Greater than the sum of its parts

JDA has been providing manufacturers with best-of-breed intelligent planning solutions for decades, with these proven solutions delivering results at more than 500 manufacturers across different industries in more than 38 countries around the world. Manufacturers can now leverage the entire JDA Manufacturing Planning solution to power their digital supply chains, and achieve even greater benefits, ease of implementation and lower total cost of ownership. JDA combines the world's leading forecasting technology with market-leading network design, sales and operations planning, inventory planning, master planning, replenishment planning, order promising, factory planning and collaboration capabilities, converged with a common data model and interfaces to enable integrated manufacturing planning in the cloud. JDA Manufacturing Planning solution components work together with enhanced analytics and provide critical inputs to streamline workflow and enable optimum performance unlike any other solution available in the market.

Further, JDA's unrivaled professional service and consulting expertise can guide you through your business transformation. JDA can help define where the greatest benefits can be achieved, create a realistic roadmap based on industry best practices and your unique company constraints, and help you develop a fact-based list of benefits and potential ROI. Only JDA can provide this unparalleled combination of business process breadth, functional richness, robust technology and industry expertise that makes the total value to you as a JDA customer much greater than the sum of the parts.

**Using JDA, you can plan to deliver.**

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