

## JDA Master Planning



### Challenge: Balancing the Constraints and Opportunities of Manufacturing

Today's consumer goods manufacturing industry is typically characterized by the need to produce a fast-growing number of products, increasing demand, shorter lifecycles, high demand variability and limited but expensive options to acquire additional capacity. In addition, the manufacturing function is consistently challenged to maximize productivity, improve efficiency and reduce costs. All of these competing metrics are difficult to manage.

Historically, companies with these characteristics have employed rigid approaches to product manufacturing, seeking to maximize the utilization of expensive plant assets by scheduling long production runs. These production runs help create plant efficiencies, but they cause large inventory buildups that shift costs from the plants to working capital tied up in inventory.

In order to achieve profitable growth objectives, consumer goods companies must be able to make optimal decisions that balance flexibility, efficiency, speed to market and lower total operating cost.

### Solution: JDA Master Planning

Successful consumer goods companies are enabled to achieve these objectives by implementing JDA® Master Planning, powered by Manugistics®, a complete supply and manufacturing planning solution that optimizes multiple business constraints and metrics while enabling you to gain greater benefit from your enterprise resource planning (ERP) system. JDA Master Planning constructs a feasible, reliable plan that can drive manufacturing efficiencies, improve inventory management and lower operating costs, resulting in higher profits and competitive advantage.

A synchronized manufacturing and distribution planning solution, Master Planning generates optimal manufacturing plans, schedules and inventory deployment plans. The plans are driven by demand forecasts and simultaneously consider demand priorities, supply priorities, distribution strategies, inventory policies and material and capacity constraints.

Master Planning generates a multi-site manufacturing and distribution plan that contains optimal decisions for:

- How products should be sourced throughout the network, i.e., how materials, work-in-progress (WIP) and finished goods should flow from one facility to another

### Key Master Planning Capabilities:

- Robust modeling of manufacturing and distribution processes including multi-stage, multi-site environment
- Prioritizes demand by product, margin, customers or market segments
- Dynamically generates sourcing or product flow plan in the network based on material, capacity, costs and priorities
- Generates time-phased plans and provides short- to long-range visibility of both supply and demand
- Uses advanced optimization algorithm to generate lowest cost supply and manufacturing plans that maximize customer service
- Links supply and demand at each level in the network and generates push, pull, cancel supply recommendations
- User-friendly interface with graphical workbenches, score-cards, exception management and plan analysis features

- Which products should be made in which facilities based on supply priorities and costs
- Lengths of production runs required to minimize downtime due to changeovers
- When inventory pre-build should start for anticipating seasonal or promotional demand
- If and when overtime or outsourcing should be used to efficiently fulfill demand

The solution also provides flexible scenario analysis capabilities that enable users to review the plan and then run multiple what-if scenarios on the plan. Once these scenarios have been analyzed, the final plan is determined. At this point, the plan can be published to purchasing, manufacturing and logistics for execution, or further optimized for extended operational efficiency down to the minute granularity by using the JDA® Sequencing, powered by Manugistics® solution.

## Realize Benefits

Master Planning reduces stockouts and improves inventory turns by aligning supply with demand throughout your entire network. It allows users to plan and control the entire supply picture from determining optimal material and product quantities from suppliers, to planning and scheduling manufacturing, to replenishing and optimizing inventory throughout your distribution network.

JDA can help you achieve the benefits of optimal manufacturing planning by enabling you to:

- Minimize total operating costs from manufacturing and logistics by as much as 15-20 percent by modeling the total landed costs in your network to create a feasible, efficient, low cost manufacturing and distribution plan
- Improve service levels by as much as 3-5 percent by building the optimal amounts of inventory at the right place in the network
- Reduce global inventory and free-up cash for other investments by as much as 5-15 percent by synchronizing the manufacturing,

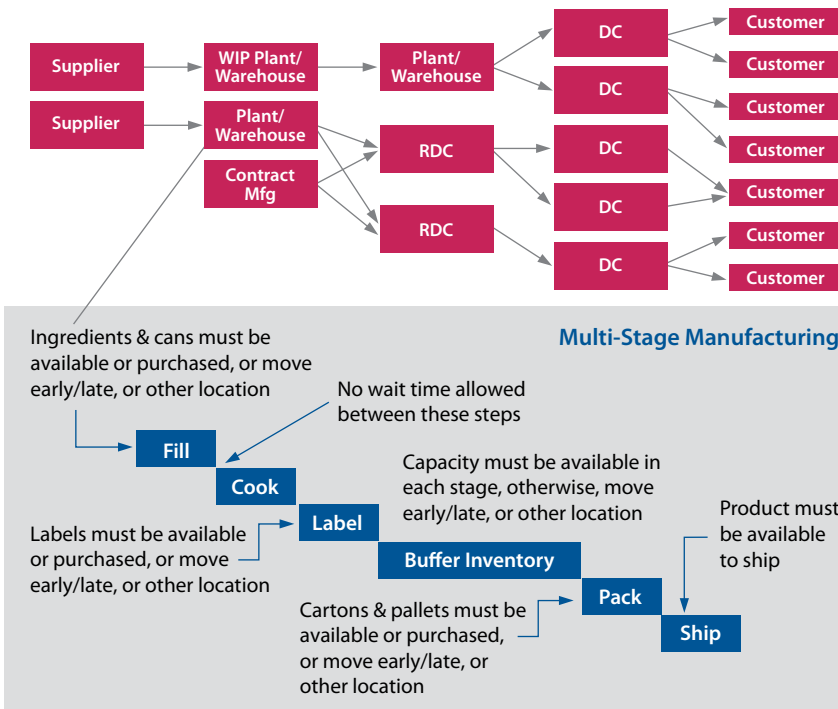
distribution and purchasing processes to better meet the always-changing customer demand

- Improve planning productivity by as much as 30-50 percent by eliminating manual analysis and frequent adjustments to the plan
- Improve asset output by as much as 5-20 percent by utilizing existing manufacturing capacity more effectively

## About JDA Software Group, Inc.

JDA® Software Group, Inc. (NASDAQ:JDAS) is focused on helping companies realize real supply chain and revenue management results – fast. JDA Software delivers integrated merchandising as well as supply chain and revenue management planning, execution, and optimization solutions for the consumer-driven supply chain and services industries. Through its industry leading solutions, leading manufacturers, distributors, retailers and services companies around the world are growing their businesses with greater predictability and more profitably.

## A Synchronized, Demand-Driven Manufacturing and Distribution Plan



- Multi-Echelon Manufacturing & Distribution
- Simultaneous Material & Capacity Constraints
- Parallel Dependent Relationships
- Product Attribute-Based Changeovers
- Inventory Deployment
- Planning Workbench & Analysis
- Visibility of Supply & Demand Across the Echelons
- Demand-Driven Supply Chain Planning
- Demand Prioritization
- Exception-Based Management

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