



THE SUPPLY CHAIN COMPANY®

Supply Chain Ace



Ace Hardware Transforms Its Supply Chain and Reduces Replenishment and Safety-Stock Inventory by \$27 Million

Ace Hardware Corporation Fast Facts

Industry
Retail – Hardlines

Headquarters
Oak Brook, Illinois

Description
With 4,500 locally owned and operated hardware, home center and building materials stores, Ace Hardware Corporation is the largest hardware cooperative in the industry. Ace Hardware currently operates 14 distribution centers in the U.S. and one in Shanghai, China, and its retailers' stores are located in all 50 states and more than 60 countries.

Revenues
\$3.45 billion

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- Greg Lenard,
director of supply chain,
Ace Hardware Corporation



Business Challenge

As Ace Hardware expanded globally, its replenishment needs became more complex. The company sought a scalable, advanced replenishment planning solution that would enable it to support time-phased demand forecasting, along with multi-echelon and multi-tier planning capabilities, for its domestic and import vendors.

Business Solutions

- JDA® Advanced Warehouse Replenishment
- JDA® Demand
- JDA® Fulfillment

Business Benefits

- Reduced inventory by \$27 million, including an \$11 million decrease in import inventory due to redeployment of safety stock and a planned reduction of \$16 million in domestic safety stock
- Increased service levels for imported products
- Decreased space requirements at its redistribution center, resulting in annual savings of \$475,000



Delivering friendly, expert advice and service has distinguished Ace Hardware Corporation since its formation in 1924. The company has grown to become the world's largest retailer-owned hardware cooperative with wholesale sales of \$3.45 billion and more than 4,400 stores in 60 countries. Ace continues to pride itself on delivering personalized service and this commitment has not gone unnoticed by consumers: J.D. Power & Associates has recognized the company as the highest in "Customer Satisfaction among Home Improvement Retail Stores" for four consecutive years.

Ace's dedication to consistently providing unmatched service to its stores and customers has been the impetus behind its global supply chain transformation. Making the journey with the company has been long-time supply chain technology partner JDA Software.

According to Greg Lenard, Ace's director of supply chain and the project's executive sponsor, the choice to partner with JDA was obvious.

"Licensing software is all about forming a strategic partnership because you're going to be in business with that partner

for at least the next 10 years," Lenard said. "We selected JDA because it's a best-of-breed provider that continuously invests in its business through the acquisition of other leading software vendors such as E3, Manugistics and i2."

Relying on JDA Solutions for Nearly 20 Years

Ace's partnership with JDA dates back nearly 20 years with the implementation of JDA® Advanced Warehouse Replenishment. Over the years, the retailer has licensed additional JDA solutions, including JDA® Seasonal Profiling and JDA® Marketplace Replenish. The latter supports Ace's award-winning Collaborative Planning, Forecasting and Replenishment (CPFR) program, which consists of 87 vendors and represents approximately one-third of its business.

While these solutions served Lenard's team well for more than a decade, Ace's needs became more complex as the company expanded globally. The company had been relying on two different replenishment solutions: JDA to support its domestic vendors and a third-party solution to handle its import vendors that weren't integrated with the business.

Migrating to "Retail-Ready" Forecasting, Multi-Echelon Planning

The JDA® Demand and JDA® Fulfillment solutions won the Ace inventory control team over with their support for time-phased demand forecasting along with multi-echelon and multi-tier planning capabilities.

"We needed a more advanced replenishment planning process that could scale to the size of our business. We also needed a solution driven by a highly accurate, consolidated forecast to provide a single version of the truth across our domestic and import vendors," said Paul Sikes, Ace's director of inventory control. "JDA Demand is a powerful tool that delivers more accurate and timely forecasts, as well as demand aggregation and reconciliation at the merchandise-class level."

JDA Fulfillment enabled the Ace team to quickly configure flexible global networks

that could be contracted and expanded to support the company's international global procurement requirements. It also provided better visibility for all of Ace's vendors.

"JDA Fulfillment is the only solution that we found with both the flexibility to support multi-tier replenishment and the scalability to support our wide range of import products within our 14 distribution centers," said Mike Yockey, Ace's department manager of import inventory control. "Collaboration with our vendor community has also improved by using features such as transportation load building to optimize container loading and recommended arrival reporting. This gives our vendors a longer range view of our requirements."

Embarking on New Territory: Integrating Demand and Fulfillment With Replenishment

Ace is the first company to integrate JDA's Demand engine with the JDA Advanced Warehouse Replenishment system. Being the first is never easy and to compound matters, Ace also embarked on a simultaneous project to replace its legacy transactional systems with SAP's enterprise resource planning (ERP) system.

To help support the complex project, Ace brought JDA Services on board. The team's consultants were there from day one all the way through to the successful implementation of the JDA solutions.

"The JDA Services consultants were highly skilled and knowledgeable in their roles and would readily turn to JDA technical support or other experts as resources, which was critical as our company had never gone through a transformation of this size," Lenard explained. "With JDA, we really had a partner working with us. The consultants' belief throughout the installation was that they had as much to gain from the project's success as we did."

Completing Phase One on Time and Without Business Interruption

The project had two distinct phases, starting with the integration of JDA Demand and JDA Fulfillment with Ace's import business. The second part of the project brought the JDA Demand

forecasting engine into the JDA Advanced Warehouse Replenishment system.

During phase one, Ace worked with JDA to successfully complete the 18-month deployment on time and without any interruption to the business. Ace relied on JDA Services for a "train-the-trainer" approach to learn how to navigate the JDA Demand and Fulfillment solutions.

"JDA Services helped us through a very successful transfer of knowledge from their consultants to the Ace team, enabling us to wean ourselves off of the JDA experts and run our business independently, which was a huge goal," Lenard said.

Preparing for a Culture Change With New Supply Chain Solutions and Processes

Ace credits several factors to the implementation's success: the project had executive commitment from the start and Ace's best people were assigned to work on the implementation team. In addition to dedicating six weeks to the blueprinting stage at the project launch, the retailer had a very extensive testing plan that involved more than 1,000 scripts.

While testing may have taken significant time to complete, Lenard said, "We were almost certain that when we turned on the JDA solutions, everything was going to work as it should. We were right."

Ace also focused on the culture change that the JDA solutions would set in motion, taking great care in preparing everyone for the evolution of business processes.

"Traditionally, the role of forecasting and replenishment was under the control of a single inventory analyst. New roles were part of the implementation: demand planners were responsible for forecasting while replenishment planners managed fulfillment. We spent a lot of time on the cultural change with the end result being a very stable process since going live," Sikes said.

Staying on Top of Trends With Improved Forecasting

With five new forecasting algorithms, expanded capabilities and a new forecasting process, Ace has revamped its traditional approach to forecasting. Weekly instead of monthly forecasting now enables the retailer's demand planners to quickly catch trends for new and seasonal products, according to Lenard. In addition to weekly forecasting, Ace added a new 13-period year to replace monthly forecasting.

"We're hearing from our user community that these new modules and algorithms are more granular – yet also easier to use," said Art Krause, Ace's department manager of demand planning and inventory control. "We're able to forecast at the lowest item/location level, as well as aggregate store orders up to a higher merchandise-class level and then reconcile down to the lowest level again. Essentially, we have the ability to forecast at two different levels."



Sikes added, "With JDA Demand, we now use time-phased forecasting with advanced algorithms to drive the JDA Advanced Warehouse Replenishment solution. Historically, we could only look at single lead-time forecast views, which offered limited forecasting horizons and a single algorithm. With the JDA Demand integration, we have the best of both worlds: the solution offers advanced forecasting, leveraging multiple algorithms suited to unique demand patterns of varying items and is integrated into JDA Advanced Warehouse Replenishment. As a result, we benefit from world-class replenishment optimization."

Achieving \$27 Million in Inventory Reduction and Increasing Import Service Levels

Ace has also managed to modestly improve its already high import service levels with the support of JDA.

"A competitive advantage that we hoped to gain with our supply chain transformation was – first and foremost – better service to our customers, which we define as both our stores and the consumers who shop there," Lenard said. "While economic conditions over the last couple of years have made demand forecasting difficult, I am pleased to say that we have seen a slight improvement in service level for our imported products."

In addition, Ace's new demand and fulfillment system is responsible for reducing inventory by \$27 million, according to Lenard. This includes an \$11 million decrease in import inventory due to the redeployment of safety stock and a planned reduction of \$16 million in domestic safety stock.

Optimizing Orders and Improving Supply Chain Movements

Ace can now optimize container orders for its import business – a process the company once relied on its suppliers to handle. JDA Fulfillment gives Ace greater flexibility in terms of supply chain movements (i.e., moving product from the factories directly to a distribution center and bypassing the import redistribution center, or directly to a seasonal distribution center). The solution also ensures that the company creates full containers and truckloads.

Ace uses a third-party logistics company to operate its redistribution center. By reducing the amount of inventory required to go into that facility, the company has been able to cut space requirements resulting in an annual savings of \$475,000.

Setting Sights on New Collaboration Tools to Further Improve Supplier Relations

On the horizon for Ace is the implementation of JDA® Collaborate, which will enable seamless collaboration on any time-phased data such as category, region, key customer or distribution center forecasts, replenishment plans, transportation plans and production schedules. The system aligns operations with planning, sales and marketing to ensure that promotional impacts and key customer decisions are included in the consensus forecasts.

Lenard said, "Ace believes in the value of collaboration within our supplier and internal communities. JDA Collaborate will help bring our teams onto the same page by providing a foundation for consistent planning processes, metrics and reporting."

The Ace team will use JDA Collaborate to develop forecast and order projections so that managers in its distribution centers can better plan inbound and outbound labor staffing. By improving forecasting of inbound transportation volume at its distribution centers, Ace will be able to reserve carrier capacity during peak periods. The company will also share planned order projections with suppliers, providing them with greater stability and visibility.

Finally, Ace's CPFR program will be enhanced with a new demand forecast workbench, enabling suppliers to better manage future forecasting requirements.

About JDA Software Group, Inc.

JDA® Software Group, Inc. (NASDAQ: JDAS), The Supply Chain Company®, is the leading provider of innovative supply chain management, merchandising and pricing excellence solutions worldwide. JDA empowers more than 6,000 companies of all sizes to make optimal decisions that improve profitability and achieve real results in the discrete and process manufacturing, wholesale distribution, transportation, retail and services industries. With an integrated solutions offering that spans the entire supply chain from materials to the consumer, JDA leverages the powerful heritage and knowledge capital of acquired market leaders including i2 Technologies®, Manugistics®, E3®, Intactix® and Arthur®. JDA's multiple service options, delivered via the JDA® Private Cloud, provide customers with flexible configurations, rapid time-to-value, lower total cost of ownership and 24/7 functional and technical support and expertise.

WEB
www.jda.com
EMAIL
info@jda.com

AMERICAS
US
+1 800 479 7382
Canada & Latin America
+1 480 308 3555

EUROPE
UK & Northern Europe
+44 (0) 1344 354500
France & Southern Europe
+33 (0) 1 56 79 27 00

ASIA PACIFIC
Singapore
+65 6305 4350
Australia
+61 2 8912 7900
Japan
+81 3 4461 1000
China
+86 21 2327 9400

Bangalore
+91 80 3028 8888
Mumbai
+91 22 3088 7878

