

Bouncing Back



Fairchild Semiconductor Leverages JDA Supply Chain Optimization Solutions to Quickly Recover from the Economic Downturn

Fairchild Semiconductor Fast Facts

Industry
High-Tech Semiconductor

Headquarters
South Portland, Maine

Description
Fairchild Semiconductor designs and delivers high-performance semiconductors that enable mobile connectivity and optimize energy consumption. The company's diversified product line includes power management and signal-path integrated circuits, logic and optoelectronic devices for power supply, portable, lighting, motor, computing, consumer and automotive applications.

"In less than 100 days after licensing JDA Inventory Optimization and JDA Scenario Analyzer solutions, we were leveraging them. It's one of the best experiences we've ever had. If we had chosen to go through a more traditional, on-premise and licensed deployment, we'd be tied up in a phased plan to install the applications, which could take a year or more."

- Kevin Chynoweth,
vice president of supply chain,
Fairchild Semiconductor



Business Challenge

Following the economic downturn in 2008 and 2009, Fairchild Semiconductor needed a solution that could help it deal with extremely volatile demand, a global shortage of manufacturing capacity, growing lead times and scarce supply.

Business Solutions

- JDA[®] Demand Planner
- JDA[®] Inventory Optimization
- JDA[®] Order Promiser
- JDA[®] Scenario Analyzer
- JDA[®] Supply Chain Planner

Fairchild Semiconductor opted to have JDA host the Inventory Optimization and Scenario Analyzer solutions, ensuring that it achieved a quick return on its technology investment.

Business Benefits

- Improved alignment of day-to-day inventory plans with top-level goals
- Ability to govern products by a set of highly customized inventory strategies
- Provide guidance on over- and under-utilized resources and long-term capacity requirements
- Supports the company's sales and operations planning (S&OP) processes
- Ability to re-plan the business in an economic upturn or downturn
- Improved decision-making abilities

Fairchild Semiconductor is a legacy customer of i2 Technologies, Inc., which was acquired by JDA Software Group, Inc. in January 2010. Fairchild Semiconductor continues to work with JDA on its supply chain management initiatives.



The semiconductor industry sprang into existence in the early 1960s and built the foundation for modern electronics such as radios, computers and telephones. Today, the design and fabrication of semiconductor devices is a \$249 billion business¹. Fairchild Semiconductor is among the major players in the industry, designing and delivering high-performance semiconductors that enable mobile connectivity and optimize energy consumption. With a \$1.5 billion runrate based on first quarter 2010 results, the company's diversified product line includes power management and signal-path integrated circuits, logic and optoelectronic devices for power supply, portable, lighting, motor, computing, consumer and automotive applications.

Upswing in Consumer Demand Creates Supply Chain Challenges

Following an unprecedented downturn related to the global financial crisis in 2008 and 2009, the high-tech semiconductor industry is now seeing a dramatic upturn in customer demand. Computing and mobile technologies in particular are driving an ever-increasing share of semiconductor consumptions, pressuring semiconductor supply chains to keep pace with rapid new product introductions and shrinking product lifecycles. Today, companies like Fairchild Semiconductor are dealing with

extremely volatile demand, a global shortage of manufacturing capacity, growing lead times and scarce supply.

"Unit volumes have significantly increased from where they were before we went through the recession," said Kevin Chynoweth, Fairchild Semiconductor's vice president of supply chain. In fact, the company reported first quarter 2010 sales of \$378 million, up 7 percent from the prior quarter and 69 percent higher than the first quarter of 2009.

"With volume back up to pre-recession levels, revenue is catching up. But the pressure on margin performance remains very high," Chynoweth said.

To offset this increase in demand, Fairchild Semiconductor is increasing manufacturing capacity and capabilities with minimal capital investment.

"We don't want to sacrifice profitability going forward," Chynoweth added. "We're very focused on making the best use of capacity to improve our overall margin performance and support top-line growth."

Selecting Hosted Supply Chain Solutions for Fast ROI

JDA® Inventory Optimization and JDA® Scenario Analyzer are helping Fairchild Semiconductor navigate today's new business normal. Ninety days after Fairchild Semiconductor hit its lowest point in terms of revenue level, the company made the decision to bring on new supply chain management technology. Fairchild Semiconductor selected JDA's Inventory Optimization and Scenario Analyzer solutions for more sophisticated inventory modeling capabilities and better scenario management techniques.

"We reacted to the downturn fairly well, and the JDA solutions gave us visibility into how fast demand can turn," said John Houser, Fairchild Semiconductor's supply chain program manager. "We need to re-plan the business very quickly when economic upturns or downturns occur."

The company took a speed-to-value approach to install JDA's Inventory Optimization and Scenario Analyzer solutions, opting to have JDA host the

solutions. This ensured that Fairchild Semiconductor achieved a quick return on its technology investment.

"In less than 100 days after licensing JDA Inventory Optimization and JDA Scenario Analyzer solutions, we were leveraging them," Chynoweth said. "It's one of the best experiences we've ever had. If we had chosen to go through a more traditional, on-premise and licensed deployment, we'd be tied up in a phased plan to install the applications, which could take a year or more."

Enhancing Inventory, Scenario Modeling Capabilities

JDA Inventory Optimization supports Fairchild Semiconductor's monthly planning cycle by aligning day-to-day inventory plans with top-level goals. Based on consumption patterns, criticality, velocity and other key attributes, the solution enables Fairchild Semiconductor to govern products by a set of highly customized inventory strategies.

"We let JDA Inventory Optimization propose the strategy for every single one of our products – and we have approximately 10,000 individual SKUs," Chynoweth said.

Prior to Fairchild Semiconductor's selection of JDA Inventory Optimization, offline tools and human judgment were used to determine how much buffer stock to keep on hand for each individual product.

"JDA Inventory Optimization will continue to enable us to have the right volume of product at the right staging point at all times," Chynoweth added. "The solution looks out over the planning horizon and provides the information we need to determine where to increase inventory levels and where to apply the brakes in terms of production."

The data obtained from JDA Inventory Optimization is integrated with JDA Scenario Analyzer, which allows

Fairchild Semiconductor to run different scenarios using criteria such as priority schemes and bill of materials. The solutions provide the company's users with guidance on over- and under-utilized resources and long-term capacity requirements.

“Prior to using JDA Scenario Analyzer, our process of running what-if scenarios was essentially just a top-down estimation,” said Jeff Moore, Fairchild Semiconductor’s senior director of supply chain management systems analytics. “With the tool in place, we can determine what will happen if capacity changes by a certain degree and how that would affect our production schedules, as well as our options for responding to an unplanned event.”

Supporting S&OP with Weekly and Monthly Planning Updates

The data that Fairchild Semiconductor obtains from the JDA Inventory Optimization and Scenario Analyzer applications is rolled into its sales and operational planning (S&OP) process. JDA® Demand Planner (a predecessor of JDA® Demand Manager), JDA® Order Promiser and JDA® Supply Chain Planner are an integral part of the company’s day-to-day planning cycle and form the backbone of its S&OP process.

Several years ago, Fairchild Semiconductor consolidated three separate, divisional planning systems to one engine with the support of JDA. This helps the company better balance demand and supply, providing accurate demand forecasts and visibility into global inventory levels.

“JDA Supply Chain Planner is the heart and soul of our S&OP process,” Chynoweth said. “We run all of the information gathered using the other JDA solutions through Supply Chain Planner. The output serves as the first-cut capacity rationalization plan.”

Weekly and monthly updates to the company’s centralized planning system are fed into Fairchild Semiconductor’s S&OP process, providing all stakeholders with a one-number forecast.

“We are able to make better business decisions now that there’s a single plan, which includes every division’s demand and production requirements,” said Gerry Wagner, senior director of planning and customer service at Fairchild Semiconductor. “We are enjoying the benefit of being able to have a very efficient dialogue with our financial community and other functional areas of the business because they’re using the same data that we are.”

Optimizing Inventory Levels, Sensing Demand Fluctuations Faster

Today, Fairchild Semiconductor’s inventory is leaner than ever. Fairchild Semiconductor attributes this success in part to the addition of a new inventory manager, who leverages JDA Inventory Optimization regularly to deploy company-wide inventory strategies.

“Fairchild Semiconductor’s supply chain is more constrained now than ever,” Houser said. “But every week we’ve gained ground in building up inventory for our fastest-moving products while draining inventory on the slower-moving products. While the solutions are essential, there’s also some good human judgment coming into play to make sure we’re scheduling and loading the right product.”

With an integrated business planning process supported by industry-leading supply chain technology, Fairchild

Semiconductor can identify and respond to changing market conditions faster and more efficiently. Using data from the JDA solutions, Fairchild Semiconductor runs statistical models that allow it to view trends and detect changes in demand four to six weeks sooner than if relying solely on traditional forecasting methods.

“Through the economic downturn, we achieved better-than-expected inventory performance and were able to minimize the impact on the manufacturing loading level,” Chynoweth concluded. “As such, we experienced a very controlled slowdown and a relatively controlled speed up in terms of inventory levels. It’s the combination of people, processes and solutions that are helping us deploy the right inventory strategies, which is a huge win given today’s challenges in the semiconductor space.”

About JDA Software Group, Inc.

JDA® Software Group, Inc. (NASDAQ: JDAS), The Supply Chain Company®, is a leading global provider of innovative supply chain management, merchandising and pricing excellence solutions. 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 provide customers with flexible configurations, rapid time-to-value, lower total cost of ownership and 24/7 functional and technical support and expertise.

1. Semiconductor Industry Association, <http://www.sia-online.org>

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

