

Optimizing Inventory Across a Franchise Network

From the hoses used on drilling rigs in the Australian outback to the air conditioning hoses that keep cars cool, Pirtek Australia provides an array of fluid transfer solution products and services to assist its diverse group of customers. The company distributes its products, which range from massive hydraulic and industrial hoses to small metal hose fittings, from a central distribution center in Sydney to 84 franchise locations that support a total fleet of 320 mobile service vans throughout the country.

To maintain its reputation as one of the most successful franchise businesses in Australia and to provide its franchises with superior inventory and cash flow management, Pirtek chose the Demand Solutions Service Level Optimizer to calculate the franchises' stock replenishment and to gain visibility into its inventory in multiple locations.

Pirtek faces 12-18 week lead times for 95 percent of its products. Its relaxed replenishment process prior to the Service Level Optimizer required each franchise to decide what products to buy and when to buy them. The unstructured method resulted in a poor mix of inventory at most locations, increased transportation costs and volatile customer service levels.

"The operational staff at our franchises are skilled tradespeople with a vast knowledge of fluid

transfer solutions but with limited understanding of inventory and forecasting systems," says Ian Kerr, National Supply Chain Manager.

The company wanted a more efficient and cost-effective way to replenish its franchise network that was not completely reliant on the franchisees. Pirtek had already implemented Demand Solutions' forecasting and replenishment modules in 2003 to assist in its central forecasting and inventory management. As such, the company did not have to invest in additional software to achieve its replenishment goals because the Service Level Optimizer is built into the forecasting module. The new model with Demand Solutions has drastically improved the inventory mix at the franchise level through greater focus on their most profitable items, consequently delivering improved cash flow, says Kerr.

"The Service Level Optimizer has provided inventory visibility across all of our franchises, and it's easy for the franchisees to recognize the value," says Kerr. "Demand Solutions has provided the most effective supply chain solution for our franchises and customers because it is fully automated, is refreshed on a daily basis and can be run at anytime of the week or month."

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How it works

Demand Solutions first restructured Pirtek's sales history database to an Item/Franchise level instead of an Item/Distribution Center level. The Service Level Optimizer was then used, on a monthly basis, to calculate the recommended stock holding for each franchise based on its invoiced sales history, ABC analysis and desired customer service level that Pirtek defined as A = 98%, B = 95% and C = 90%.

		UNITS		
COST		A	B	C
	A	AA	AB	AC
	B	BA	BB	BC
	C	CA	CB	CC

The key to setting up Pirtek's safety stock levels was using ABC analysis, a function built within the forecasting module that applies Pareto's Principle — the 80/20 rule — to set up a categorization matrix. Demand Solutions provides eight ABC fields by Item/Franchise record to facilitate a multidimensional matrix. Once Pirtek

defined the parameters of the analysis, the Service Level Optimizer then executed its desired replenishment strategy and applied it to every franchise in order to determine their appropriate stock levels. The new model improved the franchises' inventory mix by allowing them to focus on their "A" and "B" items.

"In reality, the franchises did not have the time to review a forecast for 3,500 line items," says Yuri Verjoustinsky, General Manager for Demand Solutions Australia. "They did however have a feeling for the stock that they wanted in their warehouses. Thus, the challenge was implementing a sophisticated solution that saved the franchises time while delivering quantifiable cost savings and improvements in cash flow."

The Service Level Optimizer stock replenishment model exceeded Pirtek's expectations, says Kerr. Currently, the company has 51 out of its 84 franchises using the tool to replenish automatically and hopes to have the remainder set up by the end of 2008. The model has proved to be so efficient for Pirtek's Australia headquarters that the office has recently taken over the forecasting and planning responsibilities for Pirtek's South Africa and New Zealand offices. 

Did you know...

The Service Level Optimizer is a piece of functionality in Demand Solutions Forecast Management module that enables enterprises with multiple distribution centers, branches or franchises to easily calculate the optimal stock level.

Benefits include:

- Inventory reduction
- Increased sales
- Improved service levels
- Visibility into inventory across multiple locations
- Improved mix of stock at each location
- Increased return on investment from inventory
- Increased efficiency because the model is fully automated

Did you know...

Everyday, Pirtek products and services touch the lives of every Australian, be it:

- Steam cleaning
- Chemical processing
- The steorage of ocean liners
- Providing steam to fire boilers of steel-producing industries
- Transporting wheat and cattle
- Powering elevators in high-rise buildings
- Exploring for oil and gas
- Producing coal and food
- Mowing
- Earthmoving required to build freeways

