CT GLOBAL SOLUTIONS
Make Every Decision Count™

sas

# Global Manufacturer
# Demand Forecasting & Service Parts Optimization

## *Challenge*

One of the largest global tools manufacturer in North America faced challenges with maximizing spare parts availability, allowing fill rates to improve and positively impact customer loyalty and satisfaction. It also needed to reduce inventory levels, freeing up working capital while minimizing obsolescence and decreasing the dollar amount of write-offs. It also needed to improve the forecasting and planning process to reduce manual processes, resulting in more favorable contractual arrangements with vendors. This was also expected to reduce ordering lead times and decrease costs of expediting. Another challenge was the lack of ability to aid decision making by rapidly generating business cases to support buy versus internal transfer decisions around spare parts inventory.

## *Solution*

CT Global was tasked with designing and implementing a demand driven planning and service parts optimization solution using SAS DDPO. The solution has three core analytical capabilities: Demand Planning and Forecasting; Inventory Optimization; and Order Generation and Order Management. The solution provided the ability to visualize global stock levels, rebalance inventory and optimize inventories for each item at each location. The solution included:

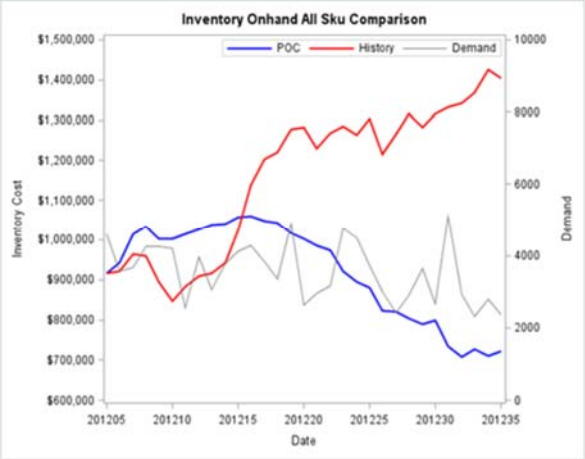
- Statistical forecasting using an automated method to select the best statistical model to generate the most accurate forecast with the following features:
  - Provides multi-echelon forecasting for product families, SKUs and all location combinations. Provides flexible hierarchical capabilities, to view and create forecasts at any level of region, country, distribution center, SKU etc.
  - Selects champion model from 64 possible models
  - Conducts seasonality and trend analysis, by location and region. Built-in models detect seasonal patterns by product/groups by location/groups
  - Accounts for substitutes, super cessions, replacements, phase in/out and lost sales
  - Allows users to create "what if" demand scenarios and update forecasts
- Consensus planning using a collaborative method that integrates statistical baselines with business judgment and input to finalize the forecast
- Service Parts inventory optimization module that provides fact based analytical answers to the following questions:
  - What is the optimal inventory range by SKU by location to achieve a specific service level based on current inventory policies?
  - Which items have crossed policy thresholds and therefore should be reordered to restock inventory?
  - How much should be ordered and when, based on current inventory, demand, service levels, network, etc.?
- Reports & key performance indicators for key users at most levels within the spare parts service organization

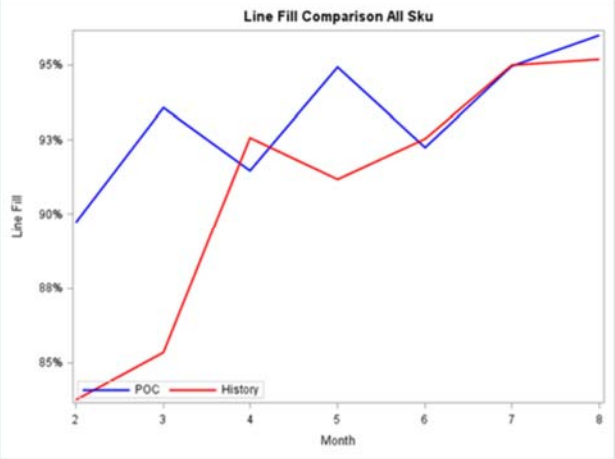

info@ctglobalsolutions.com
http://www.ctglobalsolutions.com

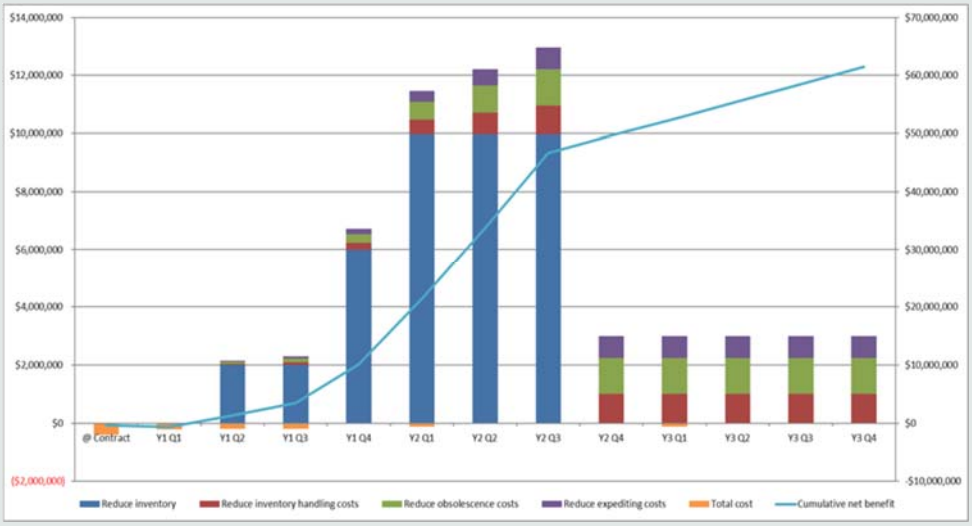
CT GLOBAL SOLUTIONS
Make Every Decision Count™

sas

# Global Manufacturer
# Demand Forecasting & Service Parts Optimization




***Results & ROI***

- Quantum improvement in forecast accuracy and reduction in inventory levels
- Faster forecasting and consensus planning and significant reduction of manual efforts
- 22% reduction in inventory and obsolescence and 4%+ Improvement in Service levels
- ROI was based on optimal inventory levels, lower inventory handling costs, lower obsolescence costs and reduced expediting costs inventory, and attainment of target fill rates / service levels
- 4 Year projected savings were more than $60M

***For more information, please contact:***


Manash Ray
(O) 484-224-7010
(M) 610-704-7855
manash.ray@ctglobalsolutions.com

Peter Turney
(O) 484-244-7016
(M) 503-789-4233
peter.turney@ctglobalsolutions.com