THE IMPORTANCE OF SUPPLY ORDER AUTOMATION FOR THE SERVICE SUPPLY CHAIN

As customers continue to look beyond the product to the service included with it, companies are placing added importance on Service Parts Planning (SPP). The service supply chain is distinct from the production supply chain in several ways and shifts the paradigm from "just in time" inventory to "just in case" inventory.

The after-market sector is tasked with planning a highly variable parts portfolio that often includes the unique combination of low volume, high mix materials with intricate part-chaining requirements. On top of that, field service supply chains must support complex networks consisting of distribution centers, fields sites, all the way down to a technician's trunk stock, and must account for long lifecycles lasting years to decades. Finally, service supply chain sourcing requires the coordination of multiple supply streams (including reverse logistics to repair defective material), multiple supply sources (build, buy, repair), and multiple suppliers (Original Equipment Manufacturers (OEMs), aftermarket suppliers). Service parts planners must manage this part, network, and sourcing complexity while meeting the contractual obligations of rapid-response Service Level Agreements (SLAs) to focus on customer satisfaction when supplying "just in case" inventory.

SUPPLY ORDER AUTOMATION WITH PROPHET

Prophet by Baxter is a software as a service (SaaS) focused on field service inventory planning and execution to optimize service parts management operations. Prophet's Distribution Center module uses a forward-looking model that calculates an optimal safety stock level and monthly forecasts based on needs in the field. It then recommends a schedule of supply orders based on that level of safety stock, the forecasted demand, and the lead time from the supplier for each material. This schedule determines when orders should be placed and keeps inventory levels from dropping below the safety stock level. Based on this logic, if a forecast has been determined to be trustworthy, target stock levels have been approved, and accurate supplier data has been provided for each material, the supply order recommendations can be trusted by extension. Once fully trusted, these orders should operate with little to no manual intervention, and should be automated for efficiency. Automating supply orders is the most productive configuration for the supply ordering process and is a Baxter Best Practice that has been proven to yield optimal results. Prophet enables supply order automation in several ways:

- **Repair Planning -** Managing repair cycles is a key element of most service parts planning organizations as it's often more cost-effective to repair defective parts than to purchase new material. Prophet is designed to forecast future returns, calculate repair yield rates, and determine material availability for generating repair orders.

- **Optimized Orders -** Configuration settings use material and supplier data such as order processing costs when calculating an economic order quantity which minimizes the combined costs of orders and carrying cost. Granular inputs efficiently optimize supply orders by defining order multiples, minimum/maximum periods of supply, and minimum/maximum order quantities.

- **Part Chaining -** Prophet accounts for part supersession by aggregating the on-hand balances of all inventory in the chained relationship and by automatically optimizing the process of transferring demand requirements of an outdated, inferior material to substitute, superior materials.

- **Automatic Order Approval -** Prophet can be configured to support the automatic approval of supply orders so that suggested order changes can be automatically approved and sent to the external order execution system, without any planner intervention. Ideal material candidates for Auto-Approval include materials with consistent demand, high volume, and low costs.

- **Order Modification/Adjustments -** In a dynamic planning environment, changes to the demand forecast or changes to on-hand inventory can create situations where Prophet now predicts shortages or excess based on current confirmed orders. Prophet's Push, Pull, Cancel functionality that has the capability to optimally alter the dates of supply orders in these shortage or excess scenarios. This logic can be used to automatically determine whether a confirmed supply order can be pushed outside of lead-time, pulled inside of lead-time, or cancelled altogether.

- **Supplier Communication -** Prophet's Supplier Web Portal allows a more streamlined electronic workflow for purchase planners and their suppliers, providing a means of communication and acknowledgment of initial purchase orders and requested changes to existing purchase orders.

- **Supplier Assessment -** Prophet's supplier performance reporting shows the monthly percentage of late orders for each supplier and is a useful tool for reviewing the accuracy of the supplier's quoted lead-times. Utilizing the Supplier Performance report Best Practice can reduce stockout events and help planners validate lead times provided by suppliers.
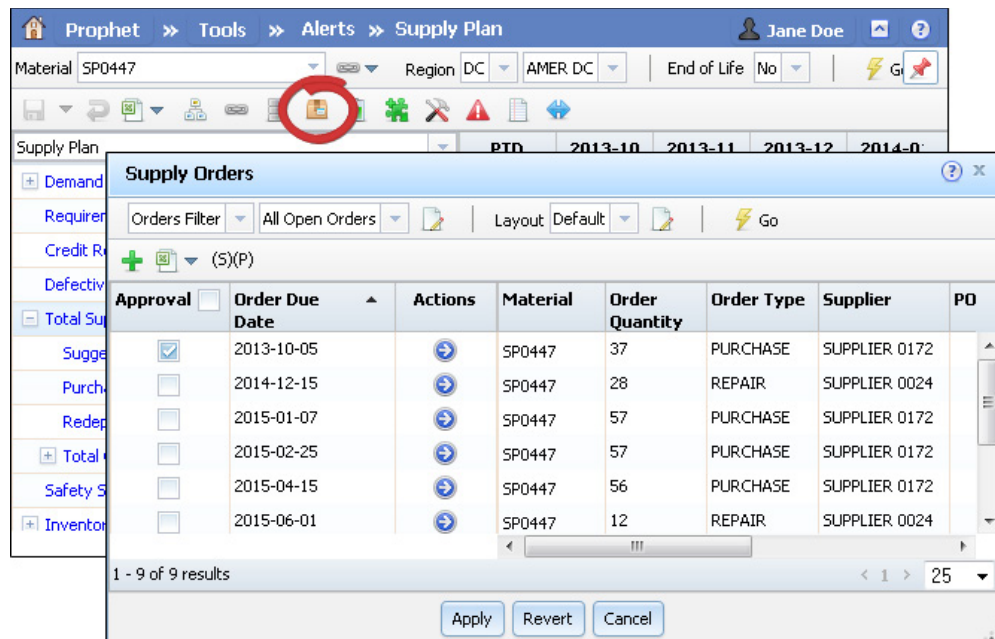
SUPPLY ORDER AUTOMATION EXPERTISE WITH BAXTER

Baxter has leveraged decades of service parts planning experience to design, identify, and measure 30 critical service supply chain best practice categories during each client's business review process. This criteria is standardized in a Best Practice Scorecard and provides a foundation to deliver on our commitment to helping customers optimize and automate their service supply chains. The scorecard is organized by practice area and the benchmarks for the Supply Order Automation measure execution of order suggestions without manual intervention, integration with the customer execution system, timely review of stockout alerts, timely review of order suggestions, and utilization of Prophet's automatic order approval logic. Baxter advocates the adoption of best practices for supply order automation during the implementation phase, and continues to monitor adoption of these best practices as part of our ongoing support.

For customers that are looking for additional support, Baxter's Planning as a Service offering can provide an extension to your planning organization to perform these responsibilities. Your designated Baxter planners will perform a range of tactical and strategic initiatives including review of past due orders, review of current backlog, timely approval of order recommendations, the monitoring of projected stockout alerts, and analysis of supplier performance reporting.

THE BENEFITS OF SUPPLY ORDER AUTOMATION BEST PRACTICE

- **Improved service levels** meet the contractual obligations of rapid-response Service Level Agreements (SLAs) in a cost-effective manner

- **Reduction in expedited shipments** as automated supply ordering allows for efficient and timely orders to properly stock to the demand forecast

- **Increased planner efficiency** with streamlined and automated supply order management processes

ABOUT BAXTER PLANNING

Established in 1993, Baxter Planning provides inventory planning and optimization solutions to support service supply chain requirements across diverse industries. Baxter's solutions seamlessly integrate with existing IT infrastructure to forecast demand and optimize target stock levels to efficiently execute supply, replenishment, and repair orders.

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