Logistics planners are struggling every day with expedited freight events, poorly utilized transportation resources, excess slow moving stock, and competing customer priorities. QAD DynaSys Distribution Planning helps companies become effective enterprises by optimizing product flow and improving logistics decision-making in order to maximize efficiencies while managing constraints and costs. Distribution Planning adopts a high visibility approach that graphically and intuitively provides planners with an informative workbench to support decision making and event simulation by understanding that logistics environments are complex and dynamic. Planners struggle to manage real time events such as shipping delays and opportunistic shipping capacity; Distribution Planning excels in this environment due to several key technological differentiators.

DISTRIBUTION PLANNING SOLUTION

Distribution Planning is available individually or as part of the QAD DynaSys demand and supply chain planning (DSCP) suite.

VISIBILITY & SIMULATION

A key element for effective distribution planning is end-to-end visibility. Distribution Planning solution provides an intuitive geo-visualization of the entire supply network enabling ease of comprehension of material flows, inventory and order exceptions. In addition, time-pashed planning supports variable time intervals simultaneously combing daily, weekly, and monthly material flows into a single view; the visualization also supports various units of measure and currencies.

However, the visualization is not limited to a single planner. Distribution Planning offers a highly collaborative planning experience drawing on the knowledge and expertise of supply chain stakeholders both internal and external to the enterprise. A third party logistics provider is able to view the plan from a transportation capacity requirements perspective and add insights as required.

Comprehensive end-to-end visibility provides early and intuitive identification of potential plan issues as they may occur. However, some issues may require some creativity to resolve. Distribution Planning simulation and what-if scenarios provides a framework for trying various options sensitive to both the financial ramifications as well as the customer service and supply chain metrics.

PLANNING & OPTIMIZATION

Companies need to develop highly effective plans for managing product flows across distribution, storage and production networks. The comprehensive planning capabilities of the Distribution Planning solution provides supports for various material flows. This may include customer-direct, VMI and consignment stock, reverse logistics and returnables, inter-warehouse transfers, and supplier direct sourcing. Planning must provide dynamic sourcing rules based on lead-time or unit of measure. Distribution planners are struggling daily fighting fires to satisfy demand in the midst of transportation and warehouse capacity issues, shipping and receiving calendars, late shipments, product recalls, network changes, unforeseen demand. Distribution Planning provides structure and intuitive decision support to the chaos. To achieve this in the face of so many variables, distribution planning uses optimization techniques to build the optimal constraint based plan. This ensures a low cost and realistic plan incorporating distribution, storage and production costs by considering sourcing options, warehousing and transportation capacity.

SEGMENTATION & ALLOCATION

All demand is not equal, especially when it comes to supply allocation. A growing trend in consumer goods is the need to segment supply chains by market and demand type. The Distribution Planning solution provides end-to-end support for supply chain segmentation strategies. It is necessary to adopt heuristics and optimization techniques to ensure the correct demand is met. The distribution requirements and the corresponding allocation processes must be sensitive to a large number of factors that may include: market segment, customer priority, geography, revenue/margin, and demand type (including forecast, orders, safety stock, and other demand signals). Allocation heuristics include fair-share, fair-share over period, fair-share of backlog, and fixed supply ratio.

VALUE AND BENEFITS

- Reduced logistics costs due to optimized resource utilization and adherence to minimum order policies

- Improved customer satisfaction due to fewer stock-outs and better on-time delivery performance

- Improved efficiency of your global supply chain network

- Reduced obsolescence and waste with better planning

- Reduced excess inventory due to balancing capabilities

- Improved visibility into customers, supply chains, production and distribution resulting in optimal and more profitable options and choices

- Better anticipated potential disruptions and opportunities. Improved agility to change

KEY CAPABILITIES

Capacity constrained. Distribution Planning optimizations generate the ideal finite capacity plan considering the costs and capacities of distribution centers and carriers. A range of other factors are simultaneously considered such as lead-times, minimum order size/value, incremental order sizes, and UOM (Unit of Measure).

Warehouse rebalance. The Distribution Planning solution includes the ability to evaluate balancing opportunities to suggest inter-warehouse transfer where excess stock positions are able to alleviate shortage positions.

Replenishment methodology. Distribution Planning can utilize several different replenishment models to determine distribution requirements. These include reorder-point quantity, days of supply, forecast driven, and DDMRP. The Distribution Planning solution provides the ability to apply different replenishment models (dependent on SKU characteristics) within the same overall planning model. Models can be time-phased so highly seasonal products are not subject to a sales forecast during the non-sales period.

Batch size variable UOM. Distribution Planning considers minimum, incremental order sizes that can be applied both at an order and product line level.

Look ahead logic. The Distribution Planning solution ensures maximum utilization of transportation resources by using smart look-ahead logic to partially expedite future requirements into the current requirement to maximize the utilization of a truck, shipping container, etc.

Pegging. Costs and Orders can be pegged at all levels of demand and supply throughout the planning model.

Supersession. Distribution Planning provides comprehensive supersession management. This includes the ability to allocate existing supply of a superseded product to the demand of a new product taking into account potentially different units of measure.

Reverse logistics. Product distribution is not always one way. Many products contain returnable components (printer cartridges) or refillable containers. The perpetual return of such items can be planned alongside the distribution of new products.

Product segmentation. Not all product requirements are equal. Distribution Planning provides specific support for different product segments; these may include consignment stock and vendor managed inventory. In retail and consumer good supply chains, Distribution Planning segments not-for-sale stock used for samples and product displays.

Shelf life. The Distribution Planning solution respects shelf life constraints on perishable materials reducing waste and providing lower cost plans.

Warehouse kitting. Often products are assembled or repackaged at a warehouse. The Distribution Planning solution supports simultaneous independent and dependent demand streams. Distribution Planning provides warehouse bills of materials to manage kitting and value-add activities in distribution centers.

S&OP support. The Distribution Planning solution automatically makes supply plans and simulated scenarios available to S&OP/IBP processes for tactical planning.

FUTURE PROOF TECHNOLOGY

QAD DynaSys cloud – safe, secure and available. Distribution Planning is available in the QAD Cloud. QAD Cloud services are ISO certified and carry SSAE15 SOC 1 Type II certification. Business continuity is assured with comprehensive disaster recovery planning.

Mobility. Distribution Planning user experience supports Web, mobile and touch screen user interfaces.
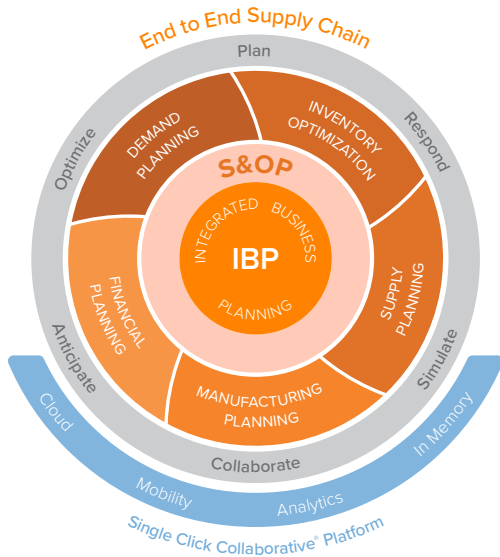
Analytics. As the IoT and machine learning deliver a greater number of data points, supply chain solutions must have a best-in-class capability to translate data into trends and decision grade analytics. Distribution Planning seamlessly embeds capability from Qlik, a leading business analytics provider. This provides a beautiful and pleasant to use data experience supporting responsive and accurate decision making.

In-Memory. Distribution Planning uses a highly scalable, rapid in-memory data model enabling real time simulation planning and effective decision support.

Integration. QAD DynaSys supports integration with QAD, SAP, Sage, JDE, Oracle, Infor, Microsoft and many other ERP and enterprise applications. It uses a data hub approach to exchange supply chain information across the organization and includes tool for building custom integrations.

QAD DYNASYS DSCP SUITE

QAD DynaSys has been empowering customers to improve productivity and profitability through better supply chain decision-making for over three decades. QAD DynaSys, a division of QAD, invests heavily in research and development to future proof our solutions.

QAD DYNASYS DSCP SUITE

Distribution Planning is available standalone or as part of the end-to-end DSCP solution.

Available Solutions

- Demand Planning
- Distribution Planning
- Production Planning
- Procurement Planning

- Network & Inventory Optimization
- S&OP
- DDMRP

At QAD DynaSys, we are helping our customers build the future of their supply chains.

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