



## QAD DYNASYS DSCP

DEMAND & SUPPLY CHAIN PLANNING

Manufacturers and distributors continually strive to manage supply chain complexity and improve customer satisfaction while reducing inventory levels and costs. Effective supply chain planning solutions provide instant visibility and intuitive decision support, enabling companies to become more agile and exploit supply chain complexity.

**QAD DynaSys DSCP** (demand and supply chain planning) provides a comprehensive end-to-end supply chain planning solution. It helps supply chain planning practitioners achieve the following business outcomes.

- **Anticipate.** DSCP embeds best of breed, intuitive business analytics that provide visibility across the supply chain to ensure accurate decision making.
- **Optimize.** The solution uses advanced algorithmic and machine learning forecasting and constraint-based optimization methods to quickly determine the best and most feasible plan.
- **Plan.** DSCP uses a single data model across all facets of planning. This tightly synchronizes plans for manufacturing, distribution, inventory management and procurement.
- **Respond.** It is designed with the latest “response planning” techniques including demand sensing and demand driven material requirements planning (DDMRP).
- **Simulate.** DSCP synchronizes real-time with IoT to alerts planners to events that may cause exceptions to the current plan. Planners are able run end-to-end simulations across the model to determine the most appropriate course of action using high performance in-memory computing.
- **Collaborate.** There is an abundance of real-time intelligence in the minds of supply chain stakeholders that can add business value to planning. DSCP is designed to harness the collective qualitative intelligence of all stakeholders.

## VALUE AND BENEFITS

**QAD DynaSys DSCP** customers benefit from a more accurate picture of their supply chain future. This result is better forecasts, reduced inventory, higher customer fulfillment, and reduced costs from unforeseen events such as expedited freight costs and customer penalties.

DSCP's value, however, extends beyond financial and operational metrics. DSCP supports digital business transformation which allows companies to identify and respond quickly to new opportunities. The result is lower supply chain volatility and complexity which enables planners to focus on strategic objectives, risk management, new markets and portfolio management. This promotes new and enhanced business models and business value propositions.

## KEY CAPABILITIES

### DEMAND PLANNING – A CLEAR PICTURE OF FUTURE DEMAND

DSCP excels at helping companies rapidly and accurately understand future demand. QAD DynaSys Demand Planning excels where product sales behavior is particularly complex by employing intelligent algorithmic methods and machine learning. These techniques apply to items with short or zero history, complex seasonality, periodic sales, high volume low frequency and make-to-order products. Complexity is no longer an excuse for not having accurate sales forecasts.

Other expert techniques employed by the Demand Planning capabilities of DSCP include:

- Demand sensing methods that use real-time demand signals to drive near horizon demand management
- Demand shaping capabilities to simulate price/volume scenarios
- Exception management processes that focus planner intervention on the most critical area(s) of the portfolio
- Expert promotion planning to manage promotional uplift and cannibalization and halo effects. Smart baseline planning ensures promotional demand is segmented from organic demand

- Modeling individual product lifecycles which ensures demand expectations align with product life stage. This includes product introduction planning, growth tapering, pipe-fill volumes, functionally rich supersession management and early obsolescence identification

### INVENTORY OPTIMIZATION

Volatility, risk and opportunity is the new normal for many customers. DSCP provides several tools critical to managing this environment of change. For example, DSCP measures the impact of various classes of inventory such as working stock, safety stock, intermediate and in-transit inventory. The solution applies segmentation rules and services level parameters to determine the optimal safety stock targets across all tiers of the supply network.

### SUPPLY PLANNING

The best possible picture of future demand naturally needs to be aligned with the best possible picture of future supply. DSCP provides comprehensive and holistic supply planning to calculate optimal distribution, manufacturing and procurement plans.

DSCP coordinates material and information flow across the entire logistics network. Finite capacity distribution plans respect lead-time, batch size, ordering, shipping

and receiving calendar constraints. The solution inherently supports segmentation strategies with deep supply allocation rules ensuring the right demand is served. Geo mapping visualizations of product flow intuitively highlights distribution activity.

DSCP optimizes the order and delivery plan for all purchased items including raw materials, packaging, finished goods and products linked to trade. This best-in-class capability supports supplier schedules, standing-order call-offs and supply calendars. It contains “look-ahead” logic to strategically attain carriage-paid or to-fill containers. Strategic sourcing rules (multiple supplier share, etc.) may be configured.

## MANUFACTURING PLANNING

DSCP provides finite capacity optimized planning to determine all manufacturing material flows across all production stages subject to resource capacity, skills and tools, labor and material constraints. Intelligent optimization algorithms determine the perfect plan across the planning horizon enabling overtime, outsourcing and seasonal stock-builds as necessary.

Complex material rules such as lot tracking and shelf life are available. DSCP provides available to promise and capable to promise to complement the order promising process.

## FINANCIAL PLANNING

DSCP is also a tool for the finance team. It enables operational budgets and sales and cost targets to be defined or synchronized with the finance system. It aligns plans and measures progress of revenue, profit and supply chain costs against budgets. It is “fiscal period/year” aware as well as simultaneously supporting sales and manufacturing calendars. This provides the ability to view a single version of the truth in finance or operational metrics, targets and calendars.

It also empowers and supports strategic planning and infrastructure decisions. For example, DSCP offers strategic network flow management and includes cost-to-serve, where-to-serve simulations factoring variability of demand and supply, capacities and fixed costs.

## SALES & OPERATIONS PLANNING (S&OP) / INTEGRATED BUSINESS PLANNING (IBP)

DSCP positions S&OP/IBP as a central focus of all supply chain planning processes. This is critical, as the impact of all decisions are aligned with executive objectives and growth initiatives. DSCP includes financial dashboards, metrics and benchmarks that extend beyond revenue budgets and sales targets. Executives are able to use to balance sheet metrics such as cash flow impact, working capital and return-on-assets to compare a planned scenario against a baseline. This financial extension is critical for companies to leverage S&OP/IBP as a platform for growth and business transformation.

## FUTURE PROOF TECHNOLOGY

**QAD Cloud – safe, secure and available.** DSCP 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.** The DSCP user experience supports Web, mobile and touch screen user interfaces.

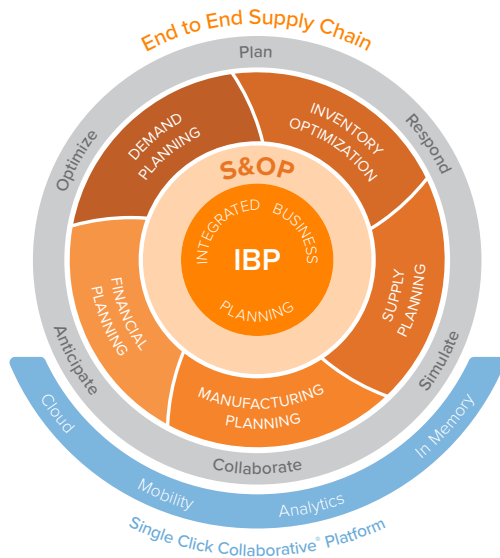
**Analytics.** As the IoT and machine learning deliver a greater number of data points, supply chain solutions must have a best-in-class capability to translate data into trends and decision grade analytics. DSCP seamlessly embeds capability from Qlik, a leading business analytics provider. This provides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

**In-memory.** DSCP 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.

## SUPPLY CHAIN PLANNING IS OUR HERITAGE

QAD DynaSys has been helping customers 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 continually innovative DSCP for our customers.



### QAD DYNASYS DSCP

QAD DynaSys DSCP solutions are available standalone or as part of the end-to-end QAD DynaSys DSCP suite.

#### 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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