Advanced Supply Chain Planning

Do you need to reduce your supply chain planning cycle times? Should you use alternate materials or resources to meet demand? Should you reallocate inventory in your distribution channel? What is the impact of a sudden reduction of supplier capacity on your customer demand? Oracle® Advanced Supply Chain Planning provides database centric holistic planning and optimization that rapidly and significantly improves supply chain performance by analyzing all aspects of a supply chain and developing optimal plans across the virtual supply chain.

Overview

With today's rapidly changing business conditions, you need a planning tool that surpasses the traditional latency of disconnected planning processes or Excel planning spreadsheets. Increased global competition, mass customization, higher levels of customer service, and less money to invest in information technology require you to move away from the "hold excess and expedite everything" paradigm. Your need to make better decisions faster, 24 hours a day, by leveraging a planning model that connects your entire supply chain network in a single planning run. Oracle® Advanced Supply Chain Planning makes you more responsive by enabling you to perform simultaneous material and capacity planning across multiple distribution and manufacturing facilities and time horizons in a single planning run, while at the same time accounting for the latest consensus forecast, sales orders, production status, purchase orders, and inventory policy recommendations. You can choose to immediately start with more advanced constrained and optimized planning constructs, leveraging the out-of-the-box optimization, or decide to get to that point gradually by starting with unconstrained planning.

Key Benefits:

- Reduce planning cycle time through holistic supply and distribution planning
- Increase planner productivity and reduce decision making latency
- Drive to operational excellence
- Incremental deployment – get benefits quickly without the loss of integration

S&T Servicio y Tecnología S.A.
Bernardo de Irigoyen 722, piso 9 - C1072AAP – CABA – Argentina
Tel.: +54 11 5217-7710

- Unconstrained, constrained, and optimized plans
- Date effective sourcing rules, bills of distribution, and transfer rules
- Hub-and-spoke planning
- Centralized and decentralized planning
- Simultaneous material and capacity planning
- Product family and item level planning
- Aggregate and detailed resources
- Critical items and resources
- Variable time bucketing and constraints
- Defaulting hierarchies for cost and penalties
- Customer and supplier facilities
- Customer, supplier, and carrier shipping and receiving calendars
- Multi-mode manufacturing support (discrete, process, CTO, project, semiconductor)
- Alternate components, resources, processes, suppliers, facilities, and ship methods
- End item and component substitution
- Co-products and by-products
- Enforce capacity, enforce demand due dates
- Supply chain exception management
- Configurable exception queries and priorities
- Root-cause exception analysis
- Late demand diagnosis
- Planner Workbench
- Personal and public queries (to-do lists)
- Advanced graphical pegging

Reduce Planning Cycle Time – Holistic Supply and Distribution Planning

Oracle® Advanced Supply Chain Planning enables you to run holistic plans that span long term aggregate planning to short term detailed schedules, multiple manufacturing processes (lot based, process, discrete, configure-to-order, and project based), and all organizations across a virtual supply chain. As a single solution for distribution, supply chain, and manufacturing planning, it is based on one supply chain model, one planning engine, and one setup. Its flexible configuration, however, enables you to define different models that can co-exist (hub-and-spoke planning; single plan) and evolve as your organization grows without requiring reimplementation. Extensive defaulting logic, paired with a productivity enhancing UI and strong exception management, enables planners to quickly use the tool to make their planning decisions.

Comprehensive Distribution Planning

Oracle® Advanced Supply Chain Planning offers comprehensive support for companies that focus more on solving distribution and replenishment problems. Distribution planners can leverage a comprehensive Distribution Planner

Workbench that presents global visibility of material positions, automates allocations and redistribution between regional and central distribution centers, with the ability to manually override, consolidates individual shipments into optimal truckloads, highlights exceptions, and releases planning recommendations for execution while taking into account kitting, end item substitution, date effective sourcing, distribution, allocation rules, global forecasting, alternates (components, suppliers, facilities, and ship methods), and supplier capacity constraints.

Increase planner productivity and reduce decision making latency

Having sophisticated technology to help manage distribution and replenishment is not sufficient in and of itself. Tools need to be intuitive, easy to use, and easy to deploy to provide real business value and reduce planner's workload. Planners can leverage robust exception management and root-cause analysis in combination with graphical supply chain pegging to identify and resolve problems from end demand to the lowest level component or resource requirements. Extensive use of workflow to enable process automation and automated corrective action enables you to significantly reduce the non-value added costs of manual activity. In addition, planners can leverage extensive personalization to tailor their workspace to their needs. Combined with the powerful simulation and multi-planner collaboration capabilities, it enables them to perform their planning tasks quickly and efficiently.

Comprehensive support for vertical industries

Oracle® Advanced Supply Chain Planning considers key requirements for a broad range of industries. For example, for Process the tool supports complex network routings, contiguous operations, resource charges, process effectivity, minimum transfer quantities, fixed and integer ingredient scaling, alternate ingredients, resources, processes, suppliers, facilities, and ship methods, alternate recipes and formulas, co-products and by-products, end item substitution, sequence dependent setups/changeovers, and batch production support (OPM integration). For High Technology, including Semiconductor, the planning tool supports alternate components, resources, processes, suppliers, facilities , and ship methods, end item substitution, sequence dependent setups/changeovers, critical items/resources and aggregate resources, lot-based jobs support (OSFM Integration), operation yield, simultaneous product family and item level planning, complex network routings, co-products and by-products, binning, multi-level configure-to-order models, and planned inventory points. For project-based and Aerospace and Defense companies, the tool supports key capabilities such as project group netting, hard and soft pegging, borrow-payback, project demand and supply views, contract pegging, cross-project allocations, project excess netting, and project specific exception messages.

Robust exception management and root-cause analysis

Oracle® Advanced Supply Chain Planning enables a management by exception paradigm. Exceptions can be displayed at any level of aggregation. You can

quickly view all the exceptions for an entire plan, or decide to just focus on the exceptions for all critical items assigned to you, or directly deal with the issues for one specific item. You can also navigate from an exception to related exceptions. You can, for example, directly relate a problem like a shortage to the orders that may be impacted by that shortage. Similarly, comprehensive late demand diagnosis helps you analyze the root-cause of late demand.

Graphical supply chain pegging

Graphical full pegging enables you to quickly see all the way from end demand to the lowest level component or resource requirements. You can easily peg up and peg down from demand to supply and vice versa, as well as jump back and forth between previous states of the pegging information, or reduce the pegging information to view critical path information only.

Reduce planner workload through automation

Oracle® Advanced Supply Chain Planning makes extensive use of workflow to enable process automation and automated corrective action. This enables you to significantly reduce the non-value added costs of manual activity. For example, workflow notifications will be sent when the planning engine detects late orders, over-utilized or under-utilized resources, and order reschedules.

Personalization

Planners can leverage extensive personalization to tailor their workspace to their needs. They can configure which screen to launch when starting their work, which queries to execute, share personal queries for items, supply, demand, resources, and exceptions with other planners, and organize supply, demand, vertical and horizontal plan views, and Gantt charts to their needs.

Simulation and Planner Collaboration

Multiple planners can also perform online simulations. Warnings are displayed to other planners if one planner is running the on-line planner for simulation purposes. For simulation purposes, planners can create multiple simulation scenarios where each scenario can vary key item attributes such as lead time, service levels, costs, and so on. Oracle® Advanced Supply Chain Planning also enables the simultaneous use of one plan by multiple planners. An audit trail tracks all of the changes made to the plan. Each planner can see any changes made by other planners that may have affected what they are working on. The audit trail also enables planners to undo changes when they realize a change made during simulation has not improved the plan.

Detailed scheduling

Oracle® Advanced Supply Chain Planning can provide scheduling results down to the minute, which could be required for the initial few days of your planning horizon. Some examples of the detailed scheduling features include: sequence dependent setups (minimization of changeovers), scheduling of batch resources such as furnaces or cleaning tanks where multiple products proceed through an operation of a fixed duration and capacity is represented in volume or weight;

minimum transfer quantity, which models situations where subsequent operations start after a portion of the operation is complete instead of the complete operation which can reduce cycle time; and, the scheduling of simultaneous resources such as when tooling, machinery, and labor all need to be available simultaneously.

Designed For Planners, Not Programmers™ – Out-of-the-box Optimization

Oracle® Advanced Supply Chain Planning was designed For Planners Not Programmers™, presenting sophisticated optimization logic in business terminology that planners understand, such as choosing alternate resources, alternate suppliers, alternate facilities, use of substitute components, alternate ship methods, and different material and resource constraints over time.

Drive to Operational Excellence

Oracle® Advanced Supply Chain Planning, in combination with other Oracle® Advanced Planning products, can enable many best business practices such as collaborative planning, sales and operations planning, and continuous improvement.

Sales and operations planning

Oracle® Advanced Planning improves your sales and operations planning process by enabling you to collaborate with your internal organizations and external trading partners on a common set of demand data. Oracle® Advanced Supply Chain Planning provides the operations planning portion of the sales and operations planning process. It provides the rough cut capacity planning to help you determine the most profitable use of your resources.

Collaborative planning

Oracle® Advanced Supply Chain Planning enables you to pull your trading partners into the planning process. For example, the output of your plan can be published to your suppliers via Oracle® Collaborative Planning directly from the Planner Workbench. The commitments from your suppliers come back as supplier capacity that is considered as a constraint in determining what you can produce to meet your demand based on your supplier capabilities. In addition, planners can view both supply chain collaboration exceptions and plan related exceptions in a single place.

Continuous improvement

Oracle® Advanced Supply Chain Planning calculates a wide variety of key performance indicators that highlight the true effectiveness and efficiency of the supply planning process and its results. In combination with extensive reports and workflow-enabled exception alerts, these enable users to discover areas for focus as well as to track the benefits of continuous improvement programs.

Incremental Deployment for Fast Return On Investment

Oracle® Advanced Supply Chain Planning can be implemented using an incremental deployment approach. Planning organizations that are comfortable

with straightforward unconstrained material and capacity planning can start with unconstrained planning, which still provides many benefits, as the planners get to use a more productive tool that provides a foundation for moving to more advanced planning processes. You can also decide to gradually move from single facility based planning to multi facility supply chain planning without the need to reconfigure your system. Multi facility supply chain planning is yet another step towards improvement of your planning decisions as the flow of materials between organizations is taken into account holistically when planning your supply chain.

Constraint based planning is typically the next step. This requires more accurate data but in return provides better quality plans. From constrained planning you can easily evolve to optimized planning. In both cases there is no need to retrain planners or to reconfigure the system.

Oracle® Advanced Supply Chain Planning even enables you to run different models at the same time. The coexistence of models enables you to compare the current unconstrained planning decisions to the 'future' constraint based planning decisions during a transition period, or to allow more sophisticated planning organizations in your company to move forward more aggressively than others.

Proven, Secure, Scalable, and Reliable Component Architecture

Oracle® Advanced Planning's unique database-centric architecture enables companies to operate business operations, 24 x 7. First, by storing all planning information in the database, Oracle® Advanced Planning leverages the built-in capabilities for locking, hot backup and recovery, multi-threading, and materialized views, for the most secure, reliable, and fastest response. Second, by supporting a distributed architecture, you can deploy Advanced Planning as a component against multiple ERP source systems or in a single instance when deploying with Oracle's E-Business Suite.

Incremental Deployment – Get Benefits Quickly

You can deploy all Oracle® Advanced Planning products incrementally, enabling you to start with a smaller planning footprint quickly, while still leveraging the tight integration once all components are operational. Each additional module requires limited incremental effort to implement since all the components share a common foundation and work together seamlessly. If supply and distribution planning pose the biggest challenge to your business, you can decide to implement Advanced Supply Chain Planning first. Alternatively, you can enable it later as an add-on to your existing implementation of Oracle® Advanced Planning, leveraging all of your existing setup.