

i2, a leading supply chain optimization company, utilizes a radical process methodology to help companies deal with the variability that comes from today's gap in managing supply and demand. This methodology combines integrated planning and execution to allow customers to integrate disparate planning systems with workflow management systems to optimize their businesses' performance in real time.



## i2 Supply Chain Planner

i2 Supply Chain Planner™ can help companies achieve a high degree of customer satisfaction with the best possible margins while working within the constraints imposed on their business. i2 Supply Chain Planner is designed to provide visibility into exceptions that inevitably occur and to help solve these exceptions in a manner that is eventually executable by the company. The executable plan created by i2 Supply Chain Planner is designed to be optimized and spans different divisions within the company such as procurement, manufacturing, distribution, and warehousing. A wide variety of planning workflows are available that support make-to-stock, make-to-order, and configure-to-order business scenarios across diverse industries such as automotive and industrial; consumer electronics; consumer packaged goods; process; semiconductors; softgoods; and metals.

In addition, a flexible framework also is designed to allow a company to create its own business rules during implementation. i2 Supply Chain Planner can support diverse business optimization goals in a wide range of industries through built-in solvers.

### **Solution Capabilities**

i2 Supply Chain Planner is designed to:

*Optimize production, inventory, distribution, and transportation simultaneously*

Traditional solutions generate sequential and isolated plans for inventory, production, distribution, and transportation. The planning process is long and iterative, and the resulting plan cannot be profitably executed. Production plans require inefficient transportation of material between plants. Material either arrives late, or at an excessive cost. Isolated production and distribution planning also fosters redundant safety nets of inventory at factories and distribution centers. i2 Supply Chain Planner is designed to simultaneously consider priorities for demand satisfaction, inventory replenishment, asset utilization, inventory reduction, distribution, and transportation across multiple enterprises.

i2 Supply Chain Planner has been developed to enable demand to be prioritized against safety stock and replenishment requirements. Desired utilization requirements can be set for manufacturing capacities or other assets such as transport trucks or containers. Inventory policies between desired minimum and maximum stock are stated in terms of either on-hand quantity or time. The global supplier, production, distribution, and transportation network can be planned simultaneously to optimize for profitability and efficiency.

*Gain global visibility with emphasis on problem areas*

Even the most sophisticated optimization can minimize planning problems and manage constraints. So how can companies focus on overcoming the constraints that limit performance? Supply Chain Planner is designed to go beyond the initial plan to provide extra flexibility and interactive planning. Through a problem-oriented design, the user is intuitively guided to monitor problems and exceptions. With clear visibility into the root cause or constraints that are creating the problem, a planner can interactively adjust constraints for better performance.

*Resolve problems quickly*

Supply chains are becoming increasingly dynamic and complex. Industries are moving away from slow-moving, vertically integrated manufacturers to becoming dynamic networks of specialized companies that collaborate to bring a complete product to market. Even small companies are part of a large and dynamic value chain. Visibility into this extended value chain and the ability to understand and quickly react to changes within it will determine each firm's competitive market position.

*Rapid, reduced time-to-value implementation*

i2 has extensive experience helping customers in several industry vertical transform their SCM processes. This experience has been used to develop industry-specific templates that help customers select the highest value solutions, configured to meet specific business needs and policies. i2 industry templates have a proven track record of bringing high value in a short time frame, with low lifetime cost of ownership. These templates are continually enhanced as industry trends change,

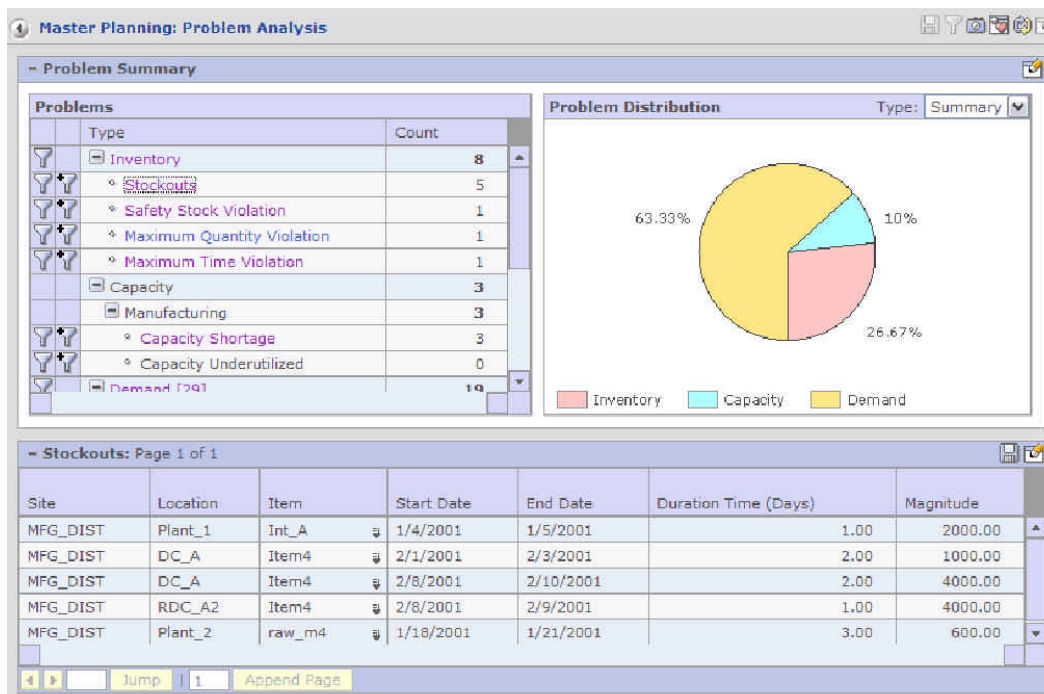
providing an out-of-the-box answer to challenging business problems, backed by the support and expertise of i2.

**i2's differentiation**

*Rich and scalable solutions for diverse workflows and industries*

i2 Supply Chain Planner can support a wide range of deep optimization capabilities with the balance of speed and intelligence needed to manage the supply chain. Depending on needs and industry, planners can optimize:

- Hard constraints
- Soft constraints
- Specialized multi-objective linear programming formulations
- Specialized heuristics
- Configurable heuristics
- Custom strategies



**Figure 1**  
Problem Analysis Dashboard

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#### *Scenario planning*

Increasing product proliferation with shorter lifecycles and increasing numbers of partners and suppliers along with sharp competition has resulted in extreme business variability. Companies are realizing that they have to proactively manage their assets by evaluating the performance of their extended supply chain against multiple possible future scenarios. i2 Supply Chain Planner is designed to allow planners to plan and evaluate scenarios, thereby helping manage risks.

#### *Planning velocity*

The best measure of supply planning velocity is perhaps the planning frequency. Companies that can replan weekly are much more nimble than those that plan monthly. Companies that can complete a planning cycle once each day—and even respond to events in between daily cycles—command a significant competitive advantage. Daily planning also signifies that a company has superior processes that enable it to sense, process, plan, and respond to changes in market conditions. i2 Supply Chain Planner is a leading master planning product, with a proven track record for speed and scalability in more than 20 industry verticals. i2 Supply Chain Planner is designed to accelerate any supply chain, no matter how large, to daily and event-based master planning.

#### **Key features**

With comprehensive representation capabilities, i2 Supply Chain Planner is designed to represent a broad range of business models over any type of supply chain. Accurate supply chain models can enable plans that are feasible and can be efficiently executed. These capabilities include:

- Bill-of-materials for configure-to-order (CTO), build-to-order (BTO), or build-to-stock (BTS) environments
- Co-product/by-product representation
- Date effective component or component group substitution
- Date effective product substitution
- Date effective alternate vendor sourcing
- Date effective bill of distribution for distribution routing of produced parts
- Date effective alternate routings
- Multi-step routings
- Date effective alternate resources
- Minimum and multiple order quantities
- Regular and multiple overtime levels of capacity availability and usage policies
- Varying levels of material availability and associated costs
- Holiday calendars by location
- Delivery calendars
- Storage and handling constraints
- Product mix decisions
- Yield calendars
- Inventory bands to represent multiple levels of safety stock
- WIP modeling
- In-transit shipments and approved shipments
- Telescopic bucketization
- Operation lot sizes
- Net change import and planning
- Problem reporting and root-cause analysis

**Benefits**

With its ability to optimize constraints and costs across production, distribution, inventory, and transportation, i2 Supply Chain Planner can make a big impact on service levels and delivered costs, as well as asset utilization. The ability to identify and resolve supply chain problems as well as improved planning velocity can ensure that the supply chain is highly responsive to changes in the marketplace.

**Success story***Improving customer service at Grupo Gamesa*

Grupo Gamesa is a subsidiary of the PepsiCo and is a leading producer of cookies and crackers in Mexico. The company operates six plants, 12 distribution centers, and 96 local warehouses.

Grupo Gamesa's product variety continues to increase, and new product introductions are key to the company's continued success. Product lifecycles are also being drastically reduced, and the company faces increasing price pressure in the global market. The company must also deal with shortages and long lead times for critical packaging materials, increasing raw material prices, unpredictable margin visibility due to wheat price fluctuations, and a volatile economy. In an effort to move toward a just-in-time environment, Gamesa's customers are reducing stock and limiting shelf space.

To meet these challenges and to acquire a greater share of markets where it does not yet dominate, Gamesa needed to improve its product and service consistency, flexibility, and speed. Gamesa chose i2 Supply Chain Management™ (SCM)—specifically i2 Supply Chain Planner—for its advanced integration of the entire value chain planning process and its flexibility to support Gamesa's complex manufacturing

and distribution network. "Today, competition is between supply chains, not among companies," said Miguel Chávez, Director of Logistics at Gamesa. "Supply Chain Planner will allow Gamesa to organize customer service by region and to reduce our planning cycle time—resulting in better customer service."

Gamesa implemented i2 solutions across its entire manufacturing network of six plants in half the time the company anticipated it would take for implementation at a single plant. "Supply Chain Planner has been key in Gamesa's re-engineering process," Chávez said. "So far we have achieved at least a \$3 million impact to our cash flow." Gamesa has already reduced its planning cycle time from 80 hours to only 24 hours and has reduced its packaging material inventory by 50 percent. The company has also doubled its customer service performance.

**Summary**

Building one synchronized plan across the extended supply chain is vital for every company to maximize profitability. In addition, the ability to respond quickly to variability in demand as well as supply situations is becoming increasingly important. i2 Supply Chain Planner can help companies build a globally optimal plan resulting in improved customer satisfaction as well as an increase in profitability.

For more information on i2 Supply Chain Planner and other i2 solutions, visit [www.i2.com](http://www.i2.com).

**Supported hardware and software platforms***Server*

- Win2k3
- AIX
- HP
- Solaris

*Databases*

- Db2
- Oracle

*Client*

- Windows 2000

*Browser*

- Internet Explorer

(For exact versions and combinations, please contact i2)



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