

i2 Supply Chain Management (SCM) not only dynamically manages the supply chain within your company, but across companies in your value chain as well. i2 SCM provides multi-enterprise visibility, collaboration, intelligent decision support, and execution capability. i2 SCM is the only end-to-end solution that enables you to strategize, plan, and execute a company's buy, make, move, store, fulfill, and service business processes across multiple enterprises for total profitability.



i2 Demand Planner

i2 Demand Planner, part of the i2 Supply Chain Management solution, delivers a powerful planning and forecasting tool-enabling enterprises to understand, anticipate and manage customer demand across their value chain. It optimizes collaboration, collection and rationalization of multiple forecasting inputs through a web-based user-friendly interface combined with industry-leading statistical techniques and unlimited causal factors. Multi-dimensional data representation supports demand-planning analysis. With i2 Demand Planner, companies can accurately model their business and increase timely internal and external communication with value chain partners – speeding time-to-market and increasing customer satisfaction.

Demand planning across value chains, businesses, divisions, plants, product families or individual products are affected by several factors such as: seasonal fluctuations, changing consumer preferences, economic conditions, emergence of new market segments, marketing promotions, pricing, competitor activities and supply constraints. Only i2 Demand Planner empowers companies to increase profitability by proactively managing customer demand through the use of extensive forecasting processes, statistical techniques and integration to existing packaged and legacy systems.

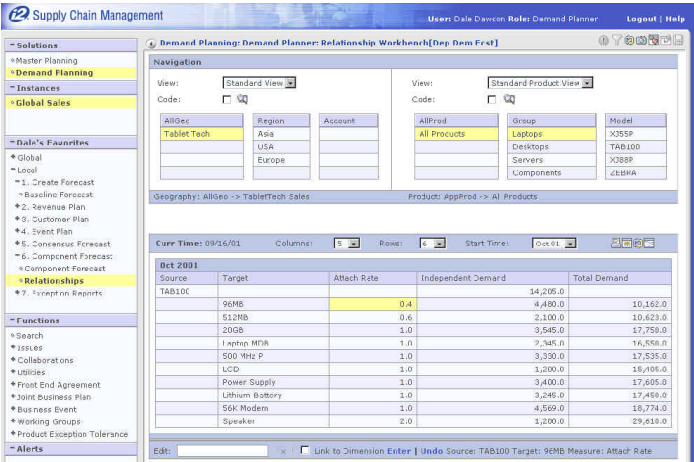
i2 Demand Planner uniquely enables companies to:

- Forecast all product options and components
- Support constraint-based demand planning
- Improve forecast accuracy
- Increase velocity with industry-specific templates
- Personalized data view

Forecast All Product Options

In today's eBusiness economy, product life cycles are short, demand shifts quickly and customers require customized products. The key to success and competitive edge is to allow customers to configure

Figure 1
Forecast demand at the product, option, and component level using the Relationship Workbench



i2 SCM Solution
i2 Demand Planner

i2 SCM Datasheet 1

React to changing demand factors

Track all end product options
and components

their orders from a menu of options and to deliver with lightening speed and accuracy. Also, aggressive promotion of standard products in the form of special multi-packs and displays has become popular—particularly in industries such as Consumer Packaged Goods. This trend requires a flexible demand planning system that supports mass-customization as well as industry-specific promotions with the ability to forecast demand at the product, option as well as the component level.

i2 Demand Planner addresses this issue by providing relationship forecasting—the ability to define relationships between any products, options and components at any level of a pre-defined hierarchy. Using Demand Planner's Relationship Forecasting Workbench, planners can independently forecast components and options that apply to multiple products. Option and component demand are automatically calculated when total product demand changes. Planners can view demand for total product as well as demand for related options or components. Manufacturing also has visibility into consolidated demand, enabling them to produce the correct number of units—regardless of how offerings are packaged for the consumer.

Support Constraint-Based Demand Planning

i2 Demand Planner provides visibility to supply constraints across the value chain through tight integration with downstream production planning systems. This visibility results in increased efficiencies and faster time-to-market by allowing planners to easily create more realistic demand plans.

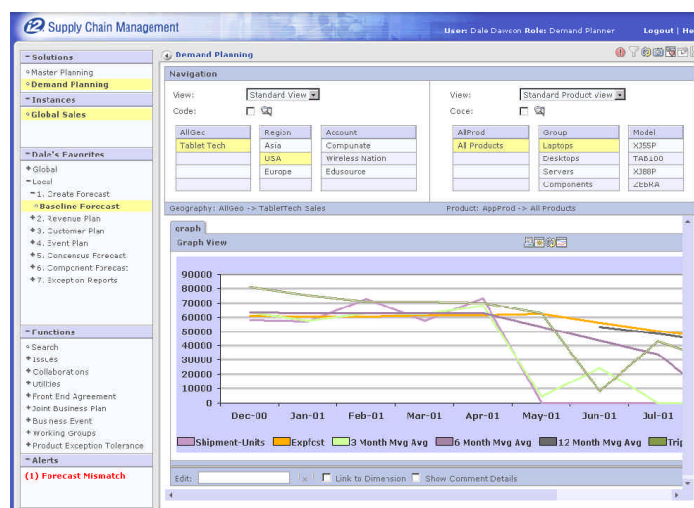
Demand signals across the value chain—such as new orders, promotional or marketing activities—are variable in nature and can significantly impact the demand plan. As such, i2 Demand Planner enables companies to constantly monitor and dynamically adjust their plans accordingly to maintain customer satisfaction while minimizing inventory-carrying costs. To help effectively manage the process, i2 Demand Planner allows users to adjust their plans through visibility into open orders, back orders and future orders. Exception reporting also helps to highlight key problem areas such as out-of-tolerance demand—based on a preset range of tolerance levels.

Order and exception visibility

Define component and product relationships

Figure 2

Tailor data view using OLAP functionality to effectively analyze and edit data quickly and accurately



Improve Forecast Accuracy

Sophisticated modeling combined with a personalized view of displayed data contributes to increased forecast accuracy – reducing safety stock levels while simultaneously increasing customer service.

Easily Create a Baseline Forecast

The critical first step in developing an accurate demand plan is starting with a correct baseline statistical forecast. i2 Demand Planner offers a broad range of powerful statistical modeling techniques to accurately forecast even the toughest items such as promoted, slow-moving, seasonal and new products. These modeling techniques include exponential smoothing, multiple regression, Box-Jenkins and Croston's. All statistical models are dynamically calculated for all dimensions, levels, and views of the data. To ensure the use of the most appropriate statistical model and the correct level to generate the best forecast, planners can leverage i2's PickBest functionality. The user easily defines error parameters, which guides PickBest to automatically choose the statistical forecast that has the least amount of error (MAPE) at every level of the data hierarchy. This ensures the creation of an optimal statistical forecast – every time, for every product.

Develop Forecasts Based on Your Unique Business Requirements

Unique to i2 Demand Planner is a modeling language that allows users to create custom forecasting calculations using their exclusive business rules. The modeling language is particularly useful for rules-based forecasting where a certain grouping of products or geographies always have the same forecasting calculation applied to them. This is especially helpful in forecasting new products, discontinued products or products that have sporadic demand.

Increase Velocity with Industry-Specific Templates

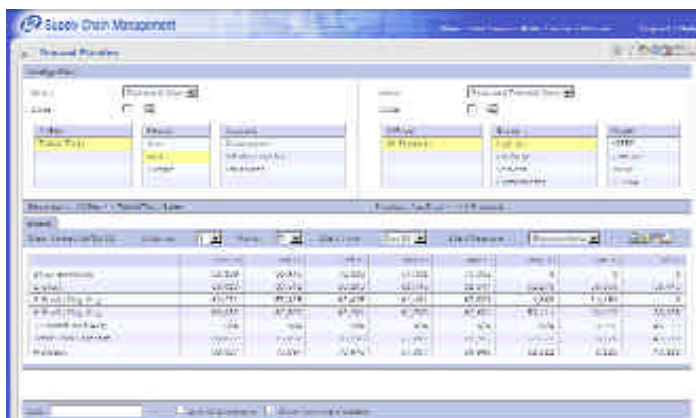
With over 230 i2 Demand Planner customers, i2 delivers more experience across multiple industries – including automotive, high tech, retail, CPG, utilities, pharmaceuticals and healthcare, semiconductor, industrial, paper, metals, telecommunications, construction, softgoods, and energy and chemicals – than any other demand planning application available today. Our solid implementation experience and deep expertise in demand planning processes enabled the development of a set of industry-specific best-practice solution templates for demand planning. These industry-specific templates, which include workflows and configurable workspaces, significantly reduce implementation time by eliminating confusion and implementation complexity—resulting in a rapid ROI in as little as three months.

Sound baseline forecasting models

Industry “best practice” templates

Figure 3

Analyze and edit data in either graphical or table mode to increase user productivity



These same templates also come with a specific set of bookmarks designed to support the complete demand planning process. Bookmarks increase efficiencies with completely configurable workspaces containing user-defined information, which deliver personalized views of particular steps in the planning process.

Personalized Data View

Demand input originates from various functions within a company as well as externally. Marketing executes activities that can cause incremental demand. Sales determine customer-specific incentives and can capture customer-specific demand signals. Operations identify manufacturing-related constraints and opportunities. Finance provides critical financial information, such as product pricing and revenue targets. And through new technologies such as Collaborative Planning, Forecasting and Replenishment (CPFR), even customers can be involved in the demand planning process.

To accommodate the different requirements for input into demand as well as planning and analysis, i2 Demand Planner offers a flexible multi-dimensional Online Analytical Processing (OLAP) tool-which allows users to display data in their choice of views. Using any numeric data stream, full security, configurable views, and bookmark capability, the application can be tailored to display data in workspaces catering to the different parties' needs. With this tool, for example, Marketing or Operations can create a bookmark tailored to display data in a required format, enhancing the user experience. Drag and drop functionality helps users customize their data view to analyze and easily input key data back into the data repository-increasing accuracy in forecasting input as well as ensuring quick decision-making.

Custom lists offer additional configuration benefits.

Custom lists allow users to dynamically tailor the data hierarchy even further by enabling custom levels and groupings of product, geography, and time instances. i2 Demand Planning delivers all of these functionality via web-based technology-extending global access to all the value chain partners.

Key Features

Statistical Forecasting

- Custom models utilizing your own business logic
- Accurate statistical model generated at various levels of the database-using top-down, middle-out, and bottom-up forecasting
- Forecast error: mean error, mean absolute error, mean percent error, mean absolute % error, mean error as %, mean absolute error as %
- Multiple regression error: R-square raw, R-square adjusted, Durbin Watson, standard error of estimates, f-statistics, coefficient, estimation error, t-statistic
- Modeling techniques: Exponential smoothing - single, double, triple; Multiple and linear regression; Croston's; Periodicity, Box-Jenkins (licensed through AFS Autobox)
- Statistical forecast decomposition: level, trend, seasonality, baseline, lift
- "Rules-based" forecasting to accurately forecast difficult items such as promoted new items, slow-moving and discontinued products
- Automated selection of the best statistical forecast based on lowest MAPE

Analysis

- High-performance multi-dimensional OLAP database
- Multiple views of product, geography, and time
- "Custom lists" capability for user-defined levels and grouping of product, geography and time instances
- Multiple graphical and spreadsheet data display promotes easy analysis

Custom calculations and controls

Multi-dimensional OLAP views

Edit Capability

- Real-time edit capability at all levels of the database- defined by role-based security
- Based on user choice of historical, statistical, fixed distribution-or any user-defined technique- changes to demand at higher levels automatically affect demand at lower levels
- “Fast edit” capability - ability to edit all items in real time regardless of parent-child relationship
- Disconnect mode - ability to edit data disconnected from the server
- “What-if” scenario planning

Usability

- Configurable workspace and data display - savable as “bookmarks”
- Filtering and sorting of data and hierarchy instances
- Increased user productivity through familiarity with Excel-like features
- Integration with MS Excel and Lotus 1-2-3
- Pure web-based client architecture for easy access and maintenance
- Ability to input qualitative data as comments

Reporting

- Full real time reporting capability directly from i2 Demand Planner database for all available data measures and models
- Exception management
- Communicate with forecast collaborators using messaging functionality
- Graphs
- Batch capability

Process

- Consensus planning
- Collaborative planning forecasting and replenishment (CPFR)
- Industry-specific best-practice workflow templates
- New, discontinued, promoted and transitioning product planning
- Relationship forecasting: support options, BTO/ CTO, “kitting”, component, and “mix pack” forecasting
- Exception management
- Consumption forecasting
- Supply-constrained forecasting
- “ABC analysis” and planning
- Forecasting accuracy - reporting, analysis and archiving
- Real-time forecast conversion (currency, unit of measure, etc.)
- Financial planning - ASP, revenue forecasting, pricing analysis

Supported Hardware and Software Platforms*Web (client) Infrastructure**Client*

- Windows NT 4.0
- Windows 2000

Server

- Windows NT 4.0
- Windows 2000
- AIX 4.3.3
- AS/400 V5R1
- HP-UX 11.0
- HP-UX 11i
- Solaris 6
- Solaris 8

Browser

- MS Internet Explorer 5.01
- MS Internet Explorer 5.5



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