



Auditing an Installed System: **i2 Demand Planner**

DEMAND PLANNING SOLUTION

AT A GLANCE

- **Client Industry:** CPG company specializing in branded foods production
- **Planning Profile:** Supply chain planning system for North American production and inventory control

SAP system — Providing product data to demand planning

AMPS system — Providing promotional data to demand planning

Demand planning application — Food production forecasting

Supply planning application — Factory production allocation

- **Transactions:** Adding/deleting new, seasonal, and discontinued products (SKUs), demand forecasting and reporting, inventory replenishment planning, factory planning.
- **Size:**
 - 20 food processing factories
 - 11 distribution facilities
 - 18 planners at corporate office

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SETTING THE STAGE FOR A BIG DECISION

Companies in the consumer packaged goods (CPG) industry face forecasting and inventory control issues that are daunting—and never more so than in the aftermath of a merger. Because our client, the foods division of one of the world's top CPG firms, has acquired another branded foods giant, they need to make a critical decision about the finished goods demand planning environment for their expanded North American operation. This decision becomes even more critical in light of the company's ongoing restructuring and rationalization efforts. At stake is nothing less than the firm's ability to reliably and cost-effectively stock the shelves of its hundreds of North American customers.

As luck would have it, both food operations had been using SAP before the merger, and are now in the process of integrating their data into one shared SAP database. The two companies do not, however, share the same forecasting system—our client uses i2 Demand Planner, while the acquired company uses Manugistics Demand Planner.

Faced with deciding what their global APS strategy would be—in particular, which demand forecasting application would be supported as a solution for the North American operation, and eventually for the entire foods division—the two companies have come up with various scenarios for consolidating the demand planning system. While they wrestle with options for adopting i2, Manugistics, or SAP APO as a DP package—or maintaining the status quo for the time being—our client has made an important decision of its own: to optimize their existing investment in i2 until a division-wide APS strategy can be put in place.

PUTTING THEIR HOUSE IN ORDER

In the high-volume/thin-margin food production environment that defines our client's business—where limited shelf life and expiration dates necessitate tightly managed inventories—accurate forecasting is a critical key to staying profitable. Currently, our client is not getting the full value that its DP system (i2) has the capability to deliver—specifically, the ability to produce meaningful, targeted forecasts for its many product lines. Product predictions are skewed either too high or too low, creating inflated or obsolete inventories, or resulting in understocked shelves.

To address these challenges, Plan4Demand was chosen to perform an audit of the client's i2 demand planning system. Our goal on this project was to pinpoint the problems that were causing inaccurate forecasts, devise solutions, and make recommendations for maximizing the overall effectiveness of the demand planning system, to bring it up to division-wide-performance capability.

CORPORATE OBJECTIVES

1. Improve profit margins
2. Reduce buffer inventory
3. Maintain production levels during restructuring
4. Enhance customer service
5. Identify single best company-wide advanced planning solution

GETTING RELEVANT DATA INTO THE SYSTEM

Looking at the client's i2 DP technical environment and at the business processes that support it, Plan4Demand quickly identified the core problems. Some were process-related—caused by the way the system was being used—while others were application-related, stemming from limited functionality in the client's current software release.

The process-related problems had one common link: the company's inability to load the demand and supply planning systems with the "latest and greatest" information about product order histories and shipping histories. To solve these problems, P4D recommended ways for the client to change or automate their methods for bringing information into forecasting.

Problem 1 — Client can't forecast for newly created products, causing forecasts to be too low

P4D Solution — Enable the DP system to import discontinued product stock-keeping units (SKUs), to be used as historical "substitutions" for new items, ensuring that new items are represented in forecasting. Build this functionality into the client's new graphic user interface (GUI). Or, as an alternative, keep discontinued-product data in the system for substitution purposes, but tag it to be "disabled" in forecasting.

Problem 2 — Client can't always forecast for products with seasonal demand patterns, resulting in forecasts that are too low

P4D Solution — Preserve the distribution network for seasonal product SKUs by keeping them in the system all the time, while using "don't ship" tags to block customer orders during the "off season."

Problem 3 — Product information in DP isn't always represented in supply planning, making factory production forecasts too low

P4D Solution — Automate the client's error-prone manual process of setting up product data in supply planning, then make sure this information "syncs" with data in demand planning (see diagram).

Problem 4 — Net shipping data, which reflects returns and other real-world adjustments, is not available in the DP system, causing forecasts to be based on artificially high gross shipment numbers.

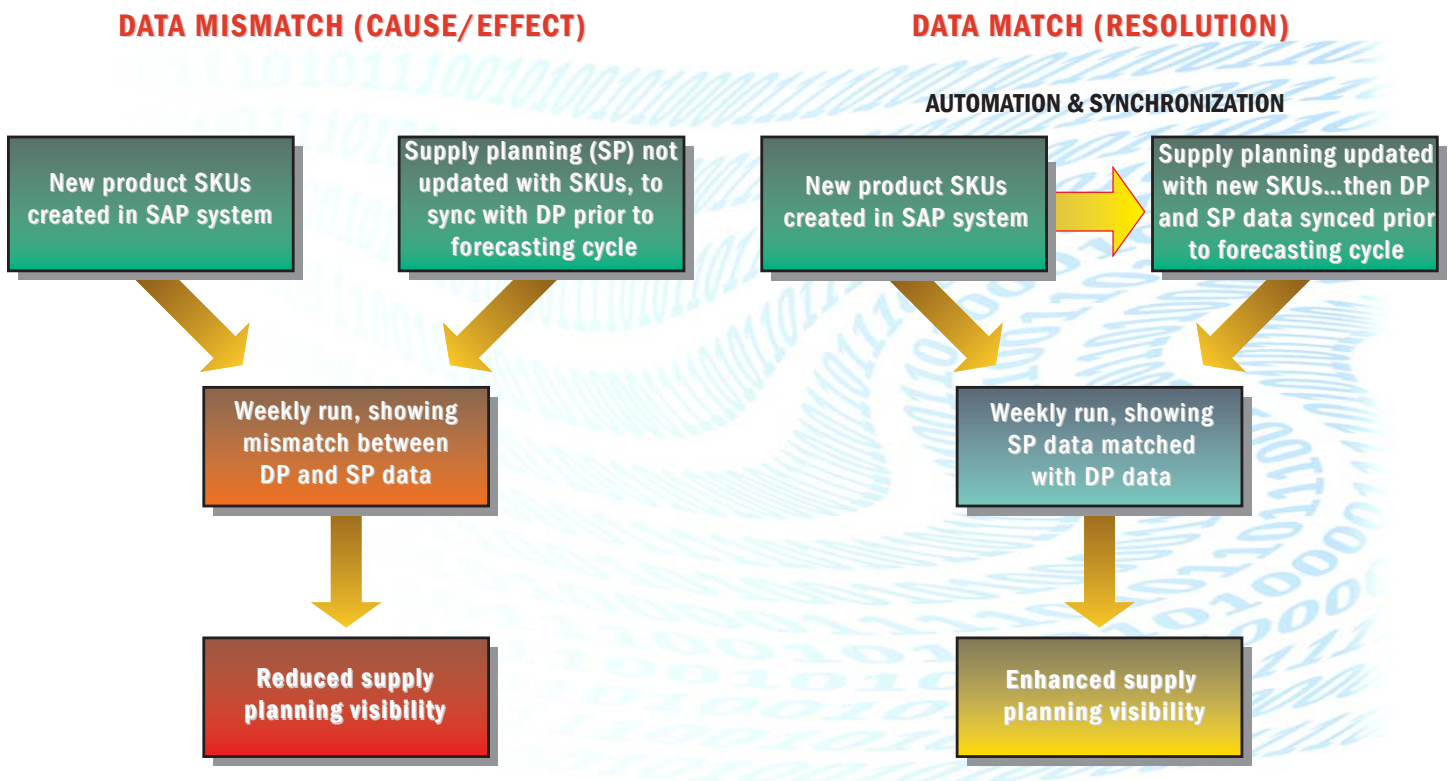
P4D Solution — Automate the loading of net shipping data into DP so that company planners can base forecasts on the actual number of products retained by customers.

WORKING WITH UP-TO-DATE TOOLS

Along with these process-related problems, the client also needs to address another critical issue: the obsolescence of its i2 Demand Planner 4.5A system. This version, which doesn't possess the stability and functionality of more current releases, limits the effectiveness of the company's planners, who need updated features that would provide faster access to pertinent DP data and more effective tools for streamlining and fine-tuning the forecasting process.

To give planners the enhanced functionality they need, P4D recommended an upgrade to DP version 5.1.1, a much more stable and sophisticated application. This software would allow demand forecasters to create their own customized

Data in the Demand and Supply Planning Systems Needs To Be in Sync to Assure Accurate Forecasts



product hierarchy lists, build off-system "what-if" forecasting scenarios for promotions and other judgment events, and generate personalized product lists for brand management purposes. These capabilities would enable faster updates and more accurate predictions.

TANGIBLE RESULTS

Through the results of our DP audit, the client now has a road map for solving its DP-related problems, while realizing these projected operational and business benefits:

- **Better statistical baseline forecasts** in which planners can more accurately apply judgment events and promotional information
- **Decrease in "lost" sales** caused by deflated inventories
- **Smoother introduction of new products** through the capture of previously lost historical substitution data
- **Decrease in product "obsolescence,"** enabled by faster inventory turns and a better handle on true demand
- **Much better understanding of the i2 DP application,** reinforced through knowledge transfer and user training

PLOTTING THE PATH FORWARD

Within the project's two-week timeframe, P4D thoroughly analyzed the client's DP environment, providing both short- and long-term value:

Deliverables – We created an audit document that details the client's i2 DP landscape, incorporating the following:

- Cause-and-effect analysis of each area
- Resolution recommendations
- Path forward to resolve – timeline, activities, and resource requirements

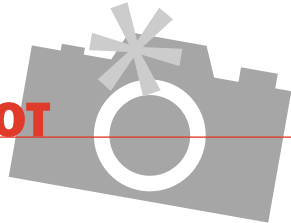
Quick hits – Our process-related solutions are low-cost and can all be completed internally within a relatively short time, providing immediate value to the client.

Path forward – We enabled the client to "think through" other issues affecting the decision-making process. For example, we offered parameters for evaluating SAP APO relative to functionality, ease of integration, and cost.

Whatever scenario the client chooses, they now have solutions for immediately improving their existing i2 DP application and for evaluating its viability as a division-wide demand planning system.



SOLUTION SNAPSHOT



- **Challenge:**
Identify and resolve configuration problems affecting the installed instance of i2 Demand Planner—to optimize the existing investment in i2 and to pave the way for choosing between i2 or another system as a division-wide forecasting solution.
- **P4D Solution:**
Automate several manual forecasting processes, modify certain current data manipulation methods, and upgrade the i2 DP system to version 5.1.1 to gain needed functionality and stability
- **Technology:**
i2 Demand Planner 4.5A, SAP system, QAD's MFG/PRO

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