INSIGHTS

Demand Planner for Microsoft Dynamics

Product Overview

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Microsoft Dynamics™

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Demand Planning for Business

Demand planning is the first step towards business planning. As businesses are moving towards a demand-centric environment where operations are geared to serve customers, demand planning becomes the initial step to subsequent business and operations planning processes such as purchasing, production, distribution, or cash flow planning. Thus, the performance of a business depends to a large extent upon the quality of the demand plan. The forecasting process is critical for the success of a business because poor forecasts can lead to insufficient, or unnecessarily high, finished good stocks, unused raw materials, misused production assets and low margins. As markets evolve, causing increased pressure on product lifecycles, increased global competition, and business turmoil, the forecasting and demand analysis processes become even more critical and difficult. Businesses that establish sound demand planning practice have significant competitive advantages.

Every business makes forecasts, regardless of their market sector, size or business activities. Sometimes the process is implicit (simply "guessing" the future), and sometimes explicit (using a software tool to support the process). With increase in the number of customers, markets, and products, implicit processes quickly become insufficient, so tools to facilitate the process and improve the quality of forecasts become necessary. The adoption of a specialized tool like Microsoft® Business Solutions Demand Planner can improve the quality of forecasts by reducing the uncertainty in demand, while facilitating the overall demand planning process and companywide collaboration. With the adoption of Demand Planner for Microsoft Dynamics, you will have powerful forecasting and demand planning functionality
at your fingertips, exactly the way you want to have it. An intuitive user interface can help you become productive quickly, with no need for extensive training. Your field sales people can collaborate easily and provide input on forecasts using Microsoft Excel.

They will not have to train themselves in yet another tool, or be connected to the corporate network for forecast visibility and analysis. The native integration with your Microsoft Business Solutions ERP applications will get you up and running quickly, while still letting you fully configure the application to suit your requirements.

Product Overview

Demand Planner for Microsoft Dynamics simplifies and improves your demand planning process. If you do not already have a well-defined process for demand planning, it will help you quickly establish one. It comes with the following key capabilities:

Multi-dimensional Data Visibility

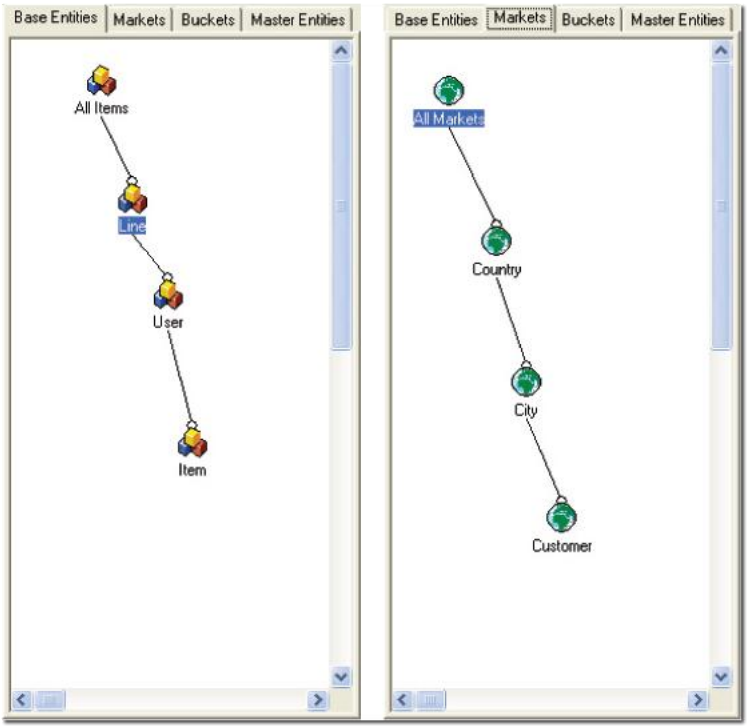
Demand Planner for Microsoft Dynamics is based on a multi-dimensional hierarchical data model which lets you organize data on the most relevant axes: products, time, and markets. These dimensions correspond to the main questions in forecasting:

- What did customers buy ("products")
- When did they buy ("time")
- Who bought and where ("markets")

On each axis, data can be arranged according to user-defined hierarchies. This allows data analysis at every level, either fully detailed or aggregated. For example, a product hierarchy can be defined in terms of items, families and lines; markets can be organized in regions, countries, areas and World; and Time granularity can be freely modeled into weeks, months, quarters, and years. This allows you to analyze data at any level: from the most detailed levels such as product-week-region up to aggregated ones such as product family-quarter-country.

Demand Planner for Microsoft Dynamics can automatically distribute quantities defined at a given aggregation level down into more detailed quantities.

This allows users to adapt the forecast generation workflow to their needs, within a full range of "top-down" (defining quantities at higher levels and then splitting them along the hierarchies) or "bottom-up" (defining quantities at higher levels as aggregations of more detailed data at lower levels) styles.

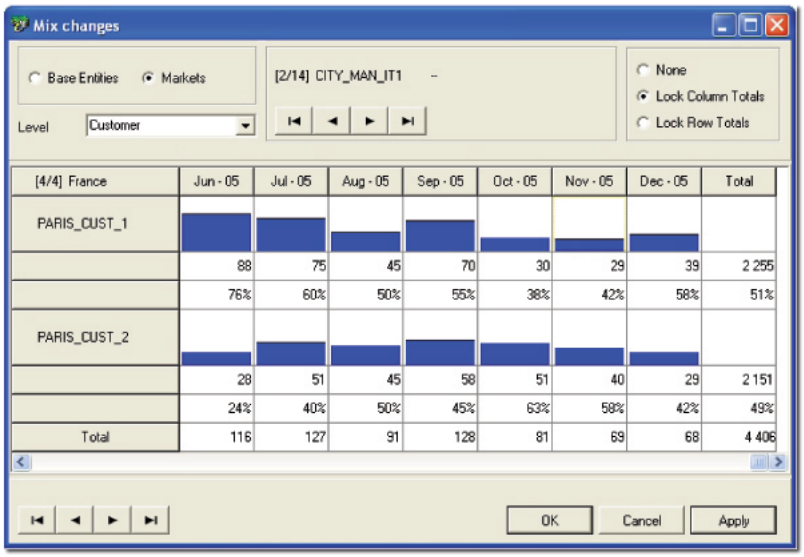


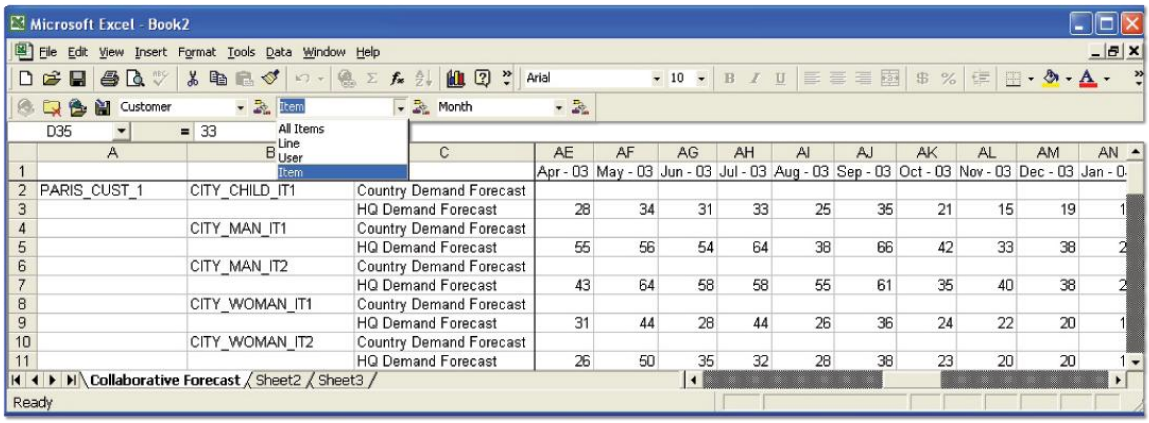
Statistical Demand Forecasting

Demand Planner for Microsoft Dynamics includes a library of selected forecasting algorithms that can derive
the future demand forecast from the analysis of the past data (typically, the historical sales data). These forecasting algorithms can be applied to several business contexts; they can generate forecasts for stable or seasonal demand, as well as account for increasing or decreasing sales trends. Demand Planner for Microsoft Dynamics also provides a "best fit" functionality, for an automated selection of the proper algorithm and related parameters. An "a priori" estimate of the possible error for each algorithm is automatically calculated before its application. This allows users to apply powerful statistical techniques to demand forecasting, without being statistical experts.

Interactive Simulation Scenarios

There are demand patterns that cannot be forecasted with an algorithmic approach. In many cases algorithms cannot be applied simply because there is not adequate historical data. For example, it can be difficult to evaluate the effects of a new promotional event or the launch of a new product, because there is no history. In these situations, human intervention is needed to create or improve any automatically generated forecasts. Demand Planner for Microsoft Dynamics allows simple and full user interaction to build the proper demand plan. Users can change quantities by direct typing or by using sliders. For example, you can change quantities in a month by keeping fixed volumes in the year. Because different hypotheses can lead to different scenarios, Demand Planner for Microsoft Dynamics lets users easily save and compare scenarios.





	A	B	C	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN
1				Apr - 03	May - 03	Jun - 03	Jul - 03	Aug - 03	Sep - 03	Oct - 03	Nov - 03	Dec - 03	Jan - 0
2	PARIS_CUST_1	CITY_CHILD_IT1	Country Demand Forecast										
3			HQ Demand Forecast	28	34	31	33	25	35	21	15	19	1
4		CITY_MAN_IT1	Country Demand Forecast										
5			HQ Demand Forecast	55	56	54	64	38	66	42	33	38	2
6		CITY_MAN_IT2	Country Demand Forecast										
7			HQ Demand Forecast	43	64	58	58	55	61	35	40	38	2
8		CITY_WOMAN_IT1	Country Demand Forecast										
9			HQ Demand Forecast	31	44	28	44	26	36	24	22	20	1
10		CITY_WOMAN_IT2	Country Demand Forecast										
11			HQ Demand Forecast	26	50	35	32	28	38	23	20	20	1

Consensus through Collaboration

Many roles in a business can make valuable contributions to the forecast, even if there is a single person or department who is responsible for the "official" demand plan. For example, sales and marketing managers, agents, area managers and product line managers can all use their knowledge of the market to help create a credible, realistic forecast. Demand plans are most effective when they are understood and embraced by everyone involved. This includes individuals and departments inside and, if necessary, outside the company. Demand Planner for Microsoft Dynamics includes collaboration features that allow sharing forecasts, managing consensus, and consolidating the agreed upon plans. Each player involved in the process can receive part of the plan he/she is involved in, work on it using Microsoft Excel, and synchronize modifications, iterating as often as necessary to arrive at a consensus. The planner can easily derive portions of the plan for distribution to specific individuals or groups, controlling the process workflow and easily consolidating the final, agreed version.

Better Together

Demand Planner for Microsoft Dynamics is natively integrated with Microsoft Dynamics AX, Microsoft Dynamics GP and Microsoft Dynamics NAV. Information can easily flow back and forth between Demand Planner for Microsoft Dynamics and your ERP system. At installation time, data from predefined ERP tables are automatically imported into the Demand Planner for Microsoft Dynamics. Wizards help you to configure the tool and the information flow.

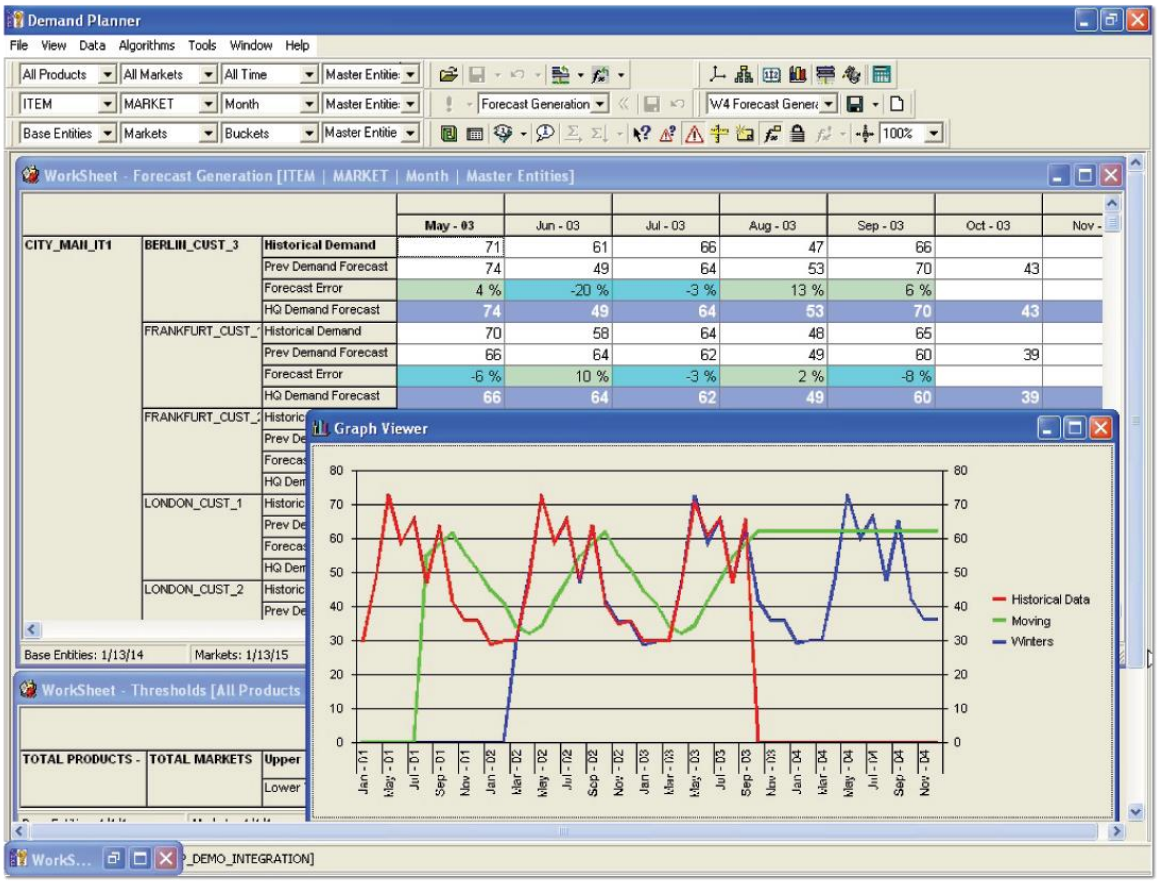
Effective integration between your demand planning tool and your ERP system plays an important role in the effectiveness of the demand forecasting process.

- It reduces the planning cycle time, making it feasible to run the forecasting process more frequently, resulting in improved accuracy.
- All applications work on the "same" data, in an unambiguous way.
- It reduces deployment cost and time, putting businesses on their way to quick ROI.
- The "closed-loop" integration makes the generated forecasts available to other planning processes.

Intuitive and Simple

Demand Planner for Microsoft Dynamics is a tool specifically designed to accomplish demand planning and forecasting. You are probably already using Microsoft Excel for your forecasting activities. Demand Planner for Microsoft Dynamics is the natural next step towards more effective forecasting. With its Excel like look and feel, planners will feel at ease, comfortable with a tool that combines powerful planning and forecasting functionality with an intuitive, easy-to-learn user interface. Demand Planner

for Microsoft Dynamics supports the demand forecasting process intuitively, without the effort, frustration and expense of developing your own "home grown" systems. Users can easily model (and easily modify) their business environment on the available axes and hierarchies. They can aggregate and disaggregate data in the three dimensional models with a few clicks, easily apply statistical algorithms and compare them. Additionally, users can easily share demand plans with multiple stakeholders, with easy distribution and consolidation that encourages collaborative planning.



Business Benefits

Using Demand Planner for Microsoft Dynamics, you can:

- Start a new business year by analyzing sales data and economic results of the past year(s).
- Determine business-wide goals (in terms of expected sales) for each product category.
- Split objectives on product lines, for example, by using pro-rata criteria, according to the past year results.
- Prepare a detailed forecast, projecting past sales into the future by applying a proper statistical algorithm.
- Review business results, simulating possible variations, comparing different scenarios and verifying coherence at different aggregation levels

- Facilitate agreements with area managers and product managers to agree on the goals and have them present their proposals easily.
- Refine the final sales forecast.
- During the business year, review the forecast in a rolling mode, for example, on a monthly basis, by comparing actual sales data.
- Calculate forecast errors, apply corrections and issue a reviewed forecast.
- The above is just one of the possible process workflows that Demand Planner for Microsoft Dynamics can support. Each business can easily use it to support its specific demand forecasting process.
- Businesses that adopt Demand Planner for Microsoft Dynamics can experience the following results:
- Improvement of the forecasting process – a clear definition of the forecasting process workflow, well-defined process responsibilities and outputs.
- Enhanced quality of forecasts – reduced planning cycle time and increased frequency of demand forecasting, application of statistical techniques, usage of clean, updated data, all leading to a noticeable reduction of forecasting errors.
- Higher commitment to demand plans – the collaborative model empowered by the tool can reach a wider consensus and commitment on an agreed demand plan.
- Team Insight – with a facilitated cycle of review and improvement, contributors end up with a clearer picture of the strategic imperative for decision making, and innovation boundaries.
- With "high quality" demand plans, businesses typically achieve:
- Improved customer service level – a good demand forecast enables better response to actual customer demand with the available goods or services, which increases the customer service level.
- Lower inventory levels and related costs – confidence in the demand forecast allows reduced safety stock levels and lower inventories at all distribution stages while preserving a satisfactory service level.
- Improved purchasing and procurement – a good demand plan leads to better planning of purchasing and procurement, which reduces cost of goods, increases predictability in the buying process, and improves relationships with suppliers.
- Better use of production assets – a good demand plan serves the basis of good production planning, leading to more effective use of internal and external assets.

Demand planning is about setting the trajectory of business and constantly revising it according to prevailing business conditions. All other business planning steps (production, purchasing, and distribution) derive from it in a direct or indirect fashion. Any effort to generate and review a high quality demand plan is of great value for any business.

Demand Planner for Microsoft Dynamics is an easy-to-use, effective tool specifically designed to support the demand analysis and forecast generation process in the most natural way for planners. It is optimized to work in combination with Microsoft Dynamics AX, Microsoft Dynamics GP and Microsoft Dynamics NAV.

Key Features	Description
3-DIMENSIONAL MODELS	Products / Time / Markets
HIERARCHIES	Hierarchies can be freely defined on each axis, with user-defined labels. Data can be aggregated and disaggregated according to defined hierarchies and indicator statistics.
INDICATORS	Basic data at any level is collected in so-called basic indicators (e.g. historical data at a given detail level). An aggregation mode can be defined for each indicator (minimum, maximum, sum, or average) to define how to aggregate values. Rules can be defined, for example, to limit cell editing.
TOP-DOWN SPLITTING	The splitting down of a value changed in level higher than the one where it was originally defined may be done uniformly, proportionally (referencing previous values) or related to the values of another indicator.
STATISTICAL ALGORITHMS	Included algorithms: Moving Average, Single Exponential Smoothing, Double Exponential Smoothing, Winters, Linear Regression. A Seasonality Index can be automatically computed to check the influence of seasonality on data.
BEST FIT FUNCTION	Automatic search for the most indicated statistical algorithm and related parameters to match with a given historical series.
FORECASTING ERROR CALCULATION	The statistical error inferred for a forecast model is automatically calculated (absolute and/or percentage error, mean absolute deviation, mean absolute percentage error).
FORMULA EDITING	Formulas can be applied to indicators to create new derived ones (formula indicators). Formulas can be defined through simple editing, or by applying a set of mathematical, logic or special operators.
FILTERS	Filters can be easily configured in order to load and visualize only those data of interest.
WARNINGS	Warnings can be defined to highlight particular situations. This lets users work “by exceptions,” focusing on critical issues in the forecasting process.
TEMPLATES	Users can configure templates to display forecasting data (indicators, warnings) at a given aggregation level in a proper way. A given presentation layout (with multiple views) can be saved as a workspace.
GRAPHICAL REPORTS	Data can be easily presented as a graph according to multiple formats for analysis.
DATA IMPORT/EXPORT	Data flow to/from Microsoft Dynamics AX, Microsoft Dynamics GP or Microsoft Dynamics NAV is allowed by a native integration.
COLLABORATION FEATURES	Planners can provide visibility to forecast plans to other players (e.g. agents, area managers etc.), each with the subset of data of their interest, control the workflow and consolidate their contribution in an agreed forecast.
COLLABORATION PLUG-IN	A plug-in for Microsoft Excel to load, manage and send back demand plans, implementing a consensus forecasting workflow.