PRONTO Xi

Applications Overview

Advanced Forecasting

Part of the Supply Chain application

Trademarks

Disclaimer

This document contains statements related to our current and future developments that may constitute forward-looking statements. They are subject to changes and may be available in a Pronto Xi 780 service pack or future release of Pronto Xi. All diagrams, drawings, product screenshots and any other types of visualisations in this document, use demo or synthetic data created for display purposes only.

Contents

Advanced Forecasting

Optimise your inventory management with Advanced Forecasting and accurately predict future demand for your products

Advanced Forecasting considers different forecasting factors, such as entered sales orders, goods shipped and inventory transfers (usage), to identify and track trends and seasonal fluctuations.

The system also applies appropriate smoothing factors based on a "best fit" forecasting method. Algorithms include triple exponential smoothing (Winter's Method) and moving averaging. With triple exponential smoothing, past observations are given exponentially smaller weights as the observations get older. This method provides more accurate forecasts when there are expected or known seasonal variations in the data.

Advanced Forecasting offers:

- graphical displays

- exception handling

- the ability to expand on exception handling to include history linking and item linking

- trend classifications, including steady demand, seasonal demand, seasonal trends and averaging

- the ability to include service levels

- multiple calculation methods

In addition, Advanced Forecasting offers customer attribute forecasting, giving you the ability to segment specific customers based on attributes — which, in turn, enables you to forecast based on attribute groups rather than specific warehouse locations. The forecast method can then calculate for each group and aggregate the demand at the planning level.

Advanced Forecasting's sequencing functionality allows you to set up a series of generational requirements as a one-off task and then run them periodically as defined. This means you spend less time preparing data and more time on the planning process.

For key market intelligence, the source is the best place to access information. Advanced Forecasting's contribution process functionality allows you to send data internally or externally for review and updating, and then simply import it back, reducing the risk of potential error.

Forecasting system

Your forecasting system should be understandable, flexible, simple to use, accurate, robust and integrated. Advanced Forecasting meets all these requirements — and more.
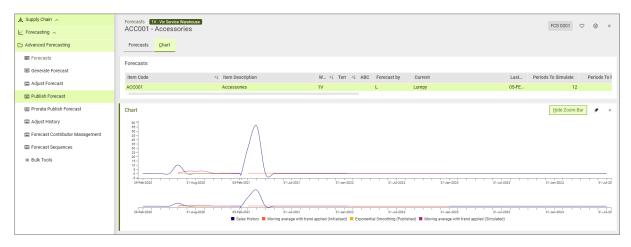
Advanced Forecasting displays calculated and manual forecasts within a chart on the same screen, making it easy to determine how suitable any forecasting method is for the pattern of sales of any item.

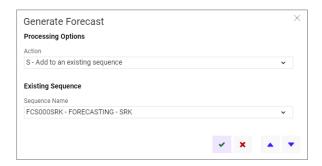Advance Forecasting provides daily, weekly, fortnightly, monthly and custom forecast periods.

By taking known market events into account, you can smooth out unusual events from the past and account for anticipated events in the future. Easily forecast a new item with no history by linking it to a similar item with a history.

With Advanced Forecasting, set-up and processing are relatively simple and can be automated. Underpinning the system is established statistical methods for forecast generation and selection. And because it is part of Pronto Xi's fully integrated suite of solutions, the data you use to calculate forecasts comes directly from Pronto Xi's sales operations tools. Once the forecast is published, the results can be used by all planning and reordering processes in Pronto Xi.

In addition, Business Intelligence Essentials contains a forecast model containing real-time information to enhance your reporting and strategic planning processes.

Visualise and predict potential sales trends to reorder critical inventory items without impacting business/company cash flow

Setup and processing are simple and automated

Trends

A trend refers to changes in sales over time. Advanced Forecasting classifies trends in a number of ways, including:

- **Steady demand** — The demand for the item is more or less constant over time

- **Steady trend** — While demand may increase or decrease, the rate of change of demand (the trend) is constant

- **Seasonal demand** — While demand may vary over time, demand is more or less constant for the same period each year

- **Seasonal demand with trend** — A steady trend in sales superimposed over a seasonal demand

- **Linear trend** — An increase or decrease that is the same over time

- **Multiplicative trend** — A percentage increase or decrease that is the same over time

Advanced Forecasting determines which of these trends is the best "fit" for each inventory item by creating a forecast based on each trend and then comparing them with measured (actual) demand.

Measures of accuracy

Advanced Forecasting has the flexibility to handle items that do not lend themselves to traditional forecasting techniques. It uses three statistical analysis techniques to determine the accuracy of the forecast. These are:

- **Mean absolute percentage error (MAPE)** — The percentage by which the forecast differs from the actual sales achieved

- **U-statistic** — A comparison of the forecast with the "naive" forecast, which only uses historical data for short-term horizon forecasting

- **Tracking signal** — A comparison of errors in a forecast over time to determine if they are systematic or random

Improving forecasting accuracy

To refine the accuracy of its forecasts, the Advanced Forecasting algorithm incorporates actual data as it becomes available using four key steps:

- **Modelling** — Advanced Forecasting develops a model of the sales pattern for each forecasted item based on trends, seasonality and random fluctuation

- **Forecasting** — Using the model, Advanced Forecasting generates new forecasts

- **Feedback** — Advanced Forecasting adds actual data to refine the model as it becomes available

- **Performance** — Assesses the forecasts' accuracy

PRONTO
SOFTWARE

We are an Australian developer of award winning business management and analytics solutions. Pronto Xi, our Enterprise Resource Planning (ERP) software, integrates accounting, operational and mobile features in a single system – optimising business processes and unlocking actionable insights. That's why for more than 45 years, over 1,500 Australian and global organisations, across a wide range of industries, have trusted Pronto Xi to simplify their most complex challenges.

With headquarters and our Development Centre located in Melbourne, we have support offices and consultants based across Australia, as well as a global network of Resellers and Solution Partners. Specialised business units within Pronto Software have the expertise to assist you with pivotal technology – Digital Transformation with Pronto Woven, Cloud and Hosting services with Pronto Cloud and Business Intelligence solutions with Pronto iQ.

When you choose Pronto Software, you gain a team with deep industry experience, giving us the ability to understand your specific needs and build innovative solutions that drive business growth and revenue.

info@pronto.net
1300 PRONTO (1300 77 66 86)

P pronto.net   **in** Pronto-Software   ▶ ProntoSoftware