

# ORACLE DEMANTRA ADVANCED FORECASTING AND DEMAND MODELING

## KEY FEATURES

- Analyze complex demand data with powerful Bayesian Markov analytics
- Gain insight on product lifecycles, seasonality and promotional impacts of new items by leveraging data of more mature products
- Multidimensional data modeling with flexible data hierarchies for up-to-date demand visibility and one-number planning
- 15 powerful forecast models mixed in an infinite number of combination to provide precise forecasts
- Automated analytics engines and scalable architecture to manage massive volumes of data
- Proprietary Bayesian forecasting to handle an unlimited number of simultaneous causal factors, including pricing and promotions
- Chaining, attribute-based forecasting, and shape modeling to predict new product demand and product phase-out
- Easy-to-use and highly configurable with wizard-based applets and point-and-click updates
- Built-in integration tool to connect with enterprise systems to maximize the benefit of demand intelligence

(1) *Integrated Auto and Linear Regression (ARIX), Auto Regressive Logistic (ARLOGISTIC), Dual Multiplicative Linear Regression (DMULT), Multiplicative Monte Carlo Regression for Intermittent (ICMREGR), Logistic (LOGISTIC), Modified Ridge Regression (MRIDGE)*

*Is your company trying to be more demand driven? A better understanding of demand drivers at a more granular level in order is the first step to improved demand sensing. Do you need to determine the cross-product effects of demand shaping activities and have forecasts automatically adjusted for these effects? Oracle® Demantra Advanced Forecasting and Demand Modeling enables you to automate the analysis of complex demand patterns, simulate an unlimited number of demand shaping scenarios, and leverage the power of advanced analytics to generate more accurate forecasts. With better insights to the true drivers of demand, your organization will be equipped to better sense and shape demand.*

### Improve forecast accuracy - Additional high precision forecast models

Oracle Demantra Advanced Forecasting and Demand Modeling adds six additional advanced logistics and Ridge regression type forecast models<sup>1</sup> to make more precise predictions. Added to nine forecast models in Oracle® Demantra Demand Management, all the 15 forecast models are automatically weighted by the analytics engine based on performance in a specific time period. This means that both short term and long term forecasts can have higher accuracy in a single planning run. A unique capability called the Bayesian Markov envelope enables extended handling of large scale causal regression models by executing multiple comparative hypotheses (subsets of causal factors) combined with Bayesian averaging.

### Built-In analytics improves demand sensing

Demantra Advanced Forecasting and Demand Modeling is built on a common, flexible and multidimensional data architecture that is shared with Demantra Demand Management and other Oracle Demantra applications to provide slice and dice analytic capabilities along any dimension and level of granularity. All departments can organize the data in hierarchies and units of measure so that each has their own view of up-to-date plans, while sharing the same granular base data—*one version of the truth*. Unlike conventional business intelligence tools that only let you view data, Demantra Advanced Forecasting and Demand Modeling enables you to dynamically read and edit data with changes automatically split and rolled up or down appropriately—known as “live read-write capability.” Top-down, bottom-up, and middle-out change analysis is supported. The unique middle-out capability enables planners to make plan changes at the appropriate level of the hierarchy and then have them automatically applied up and down the entire hierarchy.

### Unlimited causal analysis

Demantra Advanced Forecasting and Demand Modeling extends the causal analytics from the 15 preconfigured and 5 open causal factors supported in Demantra Demand Management to supporting unlimited causal factors. With unlimited causal factors, the analytics engine is able to better isolate the impact of individual positive and negative demand drivers. Unlimited causal factors greatly expand your ability to address more complex analytical questions. In addition, Demantra Advanced Forecasting and Demand Modeling supports more robust causal functionality including causal filters as well as contextual use of promotional information for more complete demand sensing. Lift decomposition as well as pre-post affects and cannibalization can be further highlighted separately. With these analytical capabilities, market, econometric, weather and other external data that might serve as a leading indicator can be modeled.

### Analyze demand shaping activities

All companies execute various demand shaping activities – programs and events designed to stimulate sales and grow market share. These activities can be in the form of price reductions, advertising, promotions, product bundling, sales incentives, additional services, and so on. These activities may be directed at individual products, groups of products or even corporate awareness. They have both intended effects, such as increased sales, and unintended effects, such as cannibalization. Demantra Advanced Forecasting and Demand Modeling uses a powerful analytic engine to analyze these demand shaping activities.

Designed to extend the demand-driven planning capabilities of Demantra Demand Management and Demantra Real-Time Sales and Operations Planning, Demantra Advanced Forecasting and Demand Modeling enables Sales and Marketing to take a more active role in the business forecasting process. It also enables supply chain and distribution planners to better align supply plans with promotions for both the promoted items and other items that might be cannibalized or see sales increases.

### Shape forecasts for new products

Oracle Demantra Advanced Forecasting and Demand Modeling extends the new production introduction functionality in Demantra Demand Management enabling you to statistically estimate shape of the new product introduction curve (product launch rate) based on prior learning. Shape modeling and attribute-based forecasting enable a more accurate new product history to be created and used as the basis for a phase-in and phase-out forecast.

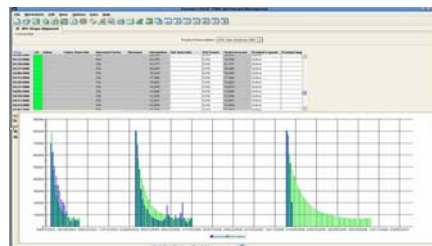


Figure 1: Use the shape of prior product history to develop a new forecast

## KEY BENEFITS

### KEY BENEFITS:

- Increased promotion forecast accuracy
- Increased service levels
- Reduced inventory levels
- Reduced expediting costs
- Decreased product returns
- Increased sales and profits
- Enhanced relations with strategic customers

### RELATED PRODUCTS:

- Oracle® Demantra Demand Management
- Oracle® Demantra Real-Time Sales and Operations Planning

### Gantt charts enhance promotion analysis

Gantt charts provide a convenient way to visualize promotion and other marketing events on a continuous calendar. Gantt charts can be displayed with any worksheet that contains promotional data. A promotion calendar feature aligns promotions to standard calendar periods.

### Quickly add functionality with a fully integrated planning solution

Oracle Demantra Advanced Forecasting and Demand Modeling is an optional module to Oracle Demantra Demand Management, both part of the Oracle Demantra and broader Oracle Value Chain Planning solution. Demantra Advanced Forecasting and Demand Modeling can also be used in conjunction with Demantra Real-Time Sales and Operations Planning to give sales and marketing powerful analytic capability to improve the overall sales and operations planning process.

### Oracle Value Chain Planning — A Complete Solution

Oracle's Value Chain Planning solution enables companies to efficiently design, plan, and service their value chains from 'factory to shelf'. Its componentized architecture enables you to start with any product and expand to other areas at any point in time. For example, you can decide to start with improvements to your demand management process because you have a forecast accuracy problem, and then implement constrained supply planning or a sales and operations planning process. The Oracle Value Chain Planning architecture leverages the scalability and security of Oracle's RDBMS and Fusion Middleware technology and can be deployed as a single instance with Oracle E-Business Suite, or integrated with other Oracle and non-Oracle systems. Whether you implement one module or the entire product solution, Oracle's Value Chain Planning solution enables you to share unified supply chain planning information across the enterprise so you can make smarter decisions faster, with better information.

### Contact Us

For more information about the Oracle Demantra Advanced Forecasting and Demand Modeling, please visit [www.oracle.com](http://www.oracle.com) or call +1.800.ORACLE1 to speak to an Oracle representative.

Copyright 2009, Oracle. All Rights Reserved.

This document is provided for information purposes only, and the contents hereof are subject to change without notice. This document is not warranted to be error-free, nor is it subject to any other warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. We specifically disclaim any liability with respect to this document, and no contractual obligations are formed either directly or indirectly by this document. This document may not be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without our prior written permission.

Oracle, JD Edwards, PeopleSoft, Hyperion, and Siebel are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners..