



One Day Add-on Workshop

Modeling & Metrics in SAP IBP & SCM

Presented By Mark Chockalingam Ph.D.



Valtitude

Statistical Modeling in IBP DP – Forecast Profiles –
Data Analysis and Graphical Review of Models

Holt Winter Models – Moving Average Models –
Exponential Smoothing – Automatic Models –
Croston's Models for Intermittent Demand

Forecast Error Metrics – Model Diagnostics –
MAPE – RMSE

Forecast Management Through Exception – Univariate
forecast alerts – Forecast Comparison Report.

Demand Planners
Forecast Analysts
Forecasting Managers
Director of Forecasting & Demand Planning
Director of Value Chain
Analysts in the Supply Chain
Inventory Planners
Operations Planners
Financial Analysts
Director of Logistics
Director of Customer Service

SAP IBP is a powerful tool that can help you create better demand forecasts and finished goods plans, when properly implemented together with appropriate training for the planning professionals. IBP DP facilitates creating a Statistical Model using a menu of statistical algorithms and automatic model selection procedures.

The main focus of the workshop is Statistical modeling and forecasting in SAP IBP. The workshop will also cover data analysis and graphical review in APO. Please bring your laptops with access to your IBP DP environment so you can test a couple of models on the fly.

In this workshop, you will also learn the mechanics behind the forecast error metrics available in the System. Most of these error metrics are familiar to demand planners however, IBP DP defines them with its own unique formula that is different from conventional calculations. So it is critical for planners to know how they are being calculated and how to use them to diagnose forecast quality.

Though IBP DP engine creates six different error metrics, you only need to look at a couple of them to accurately assess the quality of the forecast. We illustrate with examples the calculations of MAPE, RMSE and MPE and the pros and cons of using each. We then explain the concept of Tracking Signal that is being used by the exponential smoothing models in APO. We also show you how to leverage the error measures to define and use Univariate Forecast Alerts. The final tool to compare among alternative forecast models is to use the Forecast Comparison Report.

On completion of the course, you will have better insights into the modeling methodology and also learn how to take advantage of the exception management practices built into IBP DP. Learn how to leverage

Forecasting Exception Alerts

Forecast Model Comparisons

This workshop will help you answer the following questions

- How do I leverage the power of the statistical models in IBP DP?
- Are there products and customers that are better left to APO's automated modeling strategy?
- How do I adjust for outliers and data shifts?
- Are there different modeling profiles I can leverage for a group of items?
- Is the MAPE calculated in IBP DP really a MAPE?
- How do I assess the quality of my forecast?
- What is the difference between the various forecast error metrics in the software?
- Why are these measures different from the classic MAPE calculations?
- How do I know if my forecast is biased?
- How do I set up forecast alerts in IBP DP?
- How does outlier correction methodology affect the computation of errors and model quality?

Agenda

DAY THREE

8:15am – 9:00am Introduction to Stat Modeling & Forecast Profiles

- Demand Planning and Forecasting
- Family of Models
- Model Settings in IBP DP
- Illustration of Forecast Profiles in IBP DP
- Power of Profiles
- IBP DP Master Profile
- Uni-Variate Profile

9:00 – 10:30am IBP DP Terminology & Graphical Review

- IBP DP Terminology
- Data Shifts
- Historical Horizon Settings
- Forecast Horizon Settings
- Data Analysis and Graphical Review in IBP
- Ex-post Forecasting in IBP DP
- APO Modeling Phases
- Modeling Mechanics
- Model Initialization

10:30 – 10:45am *Coffee Break*

10:45am – 12:30pm IBP Modeling in Practice

- Modeling Overview
- Internal workings of IBP DP
- Forecast Profile Selection Process
- Modeling Strategies by Forecasting Need
- Modeling In Practice
- IBP DP Constant Models
- Simple Moving Average Models
- Smoothing Models
- First Order Exponential Smoothing Models
- Auto Model 1 - Forecast Strategy 50
- Auto Model 2 - Forecast Strategy 56
- Croston's Model

12:30 – 1:30pm *Lunch Break*

1:30 – 3:00pm Model Diagnostics in IBP DP

- Definition of Demand Forecast Errors
- Errors Across SKU'S vs. Errors Across Time
- Model Errors Defined in IBP DP
- Definition of MPE, MAPE and RMSE
- Model Diagnostics Through Forecast Error

3:00 – 3:15pm *Coffee Break*

3:15 – 4:30pm Additional considerations

- Forecast Alerts in IBP DP
- Diagnosis Groups
- High MAPE Alert
- Forecast Comparison Techniques

About Us

Valtitude / Demand Planning LLC provides services in Demand Planning, S&OP, Sales Forecasting, and Supply Chain Optimization.

We have helped a variety of businesses across industry verticals to improve their planning process and create value through SCM analytics and diagnostics, process re-design, solutions implementation, and customized on-site training.

We provide strategy and solutions consulting to customers across a variety of industries - Pharmaceuticals, CPG, High-Tech, Food and Beverage, Quick Service Restaurants, Utilities, Oil and Gas, Aerospace, Chemicals, and Industrial Manufacturing, Automotive, Financial Services, Publishing, etc.

Our consulting expertise includes Corporate Finance, Operations Forecasting & Planning, Strategic Forecasting, Financial Planning & Budgeting, Inventory Optimization, Production Planning, and Scheduling.

Founded in 2004, the company is headquartered in Boston and has offices in India, China, and the UK.

For more information, on our consulting services visit <https://valuechainplanning.com/consulting-details/>



Dr. Mark Chockalingam
President and Founder

Dr. Mark Chockalingam is the President and Founder of Demand Planning Net, which became Valtitude beginning September 2019. In an operational capacity, Mark serves as Chief Executive Officer of Valtitude and is responsible for strategy and general management.

Mark has over twenty years of consulting and corporate experience in the areas of Predictive Analytics, Sales forecasting, Supply Chain Optimization, and Integrated Business Planning.

Mark has worked with companies ranging from the Fortune 500 such as Pfizer, Miller SAB, FMC, Colgate-Palmolive, Honeywell, Eastman Kodak to the small and medium-sized companies.

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Sample List of Clients

Abbott Labs	KNEX
AVON	Kraton Chemicals
Avery Dennison	Kraft Foods
Ahold USA	Labatt Foods
BAE Systems	Labatt USA
BASF	Lifetime Products
Cabot Creamery	Limited Brands
Campbell Soup	McCain Foods
Celanese AG	Mead Johnson
Clorox	New Balance
Eastman Kodak	Newell Rubbermaid
F. Schumaker	Nomacorc
FMC Corporation	NSTAR Electric
Glatfelter paper	NTN USA
Grace Foods	Optos Inc.
Harley Davidson	OSRAM Sylvania
Hershey's	Pacific Cycles
Hewlett Packard	Pizza Hut
Honeywell	Qualcomm
Hypertherm, Inc.	SAB Miller
IMP Aerospace	Sabra Foods
John Deere	Sappi Fine Paper
Jack Daniels	Skyworks Solutions
Johnson & Johnson	Sunovion
Juhayana	

Testimonials

Modeling & Metrics in SAP

"Exceeded my expectations. I will take home invaluable learning from this one day session.

Awesome!!! Can't say it loud enough.
Perfect class for me, excellent timing."
Sr Systems Analyst at NORDAM

"Mark is a great teacher - great interaction, very knowledgeable. I learned a LOT!"
Demand Planner at Novozymes

"This workshop is the first external Demand Planning event that I could actually qualify as a training. That I have attended.

This workshop have given me a starting point to enhance my use of APO for my Demand Planning Forecasting."
Demand Planner Manager at Yaskawa

"Smaller class allowed for great interaction hugely helpful -looking forward to taking back to my work.

Allowed for much greater understanding of SAP and its modeling capabilities!"
Demand Plan Analyst at Cargill