



Optimizing Forecasting for Manufacturing Virtual Seminar

**Learn to Dramatically
Improve Your Forecasting
Models**

(865) 927-0491 • www.qualproinc.com

About Us

For over thirty years, QualPro has been a leader in statistical process improvement. Our twelve-step MVT Process sets us apart from other consulting companies, rendering breakthrough results that are faster, more impactful, and more cost-efficient than those of other methods. No matter your business—whether your industry is manufacturing- or service-based—our methods have been tested and proven effective in companies just like yours.

Founded in the time-honored methods of Dr. W. Edwards Deming and combined with cutting-edge analytical tools, the MVT Process is the best method for improving business performance. QualPro has partnered with hundreds of companies on tens of thousands of successful experiments—our clients keep coming back because they know QualPro’s methodology delivers results. Don’t just take our word for it. Here’s what some of our clients have to say:

“QualPro’s MVT Process to design, execute, analyze, and implement results uses a cross-functional team approach. Before we started using MVT, implementing team concepts with different management structures was difficult. QualPro’s MVT approach quickly brought together cross-functional team members, and it worked seamlessly. QualPro recommended we get shop floor, technical, mechanical, and supervision involved in the same MVT. This really boosted our efforts to use cross-functional teams. I would recommend their process for cross-functional teams in any organizational structure.”

-DuPont, Jerry Russell, Six Sigma Champion and Lean Master Black Belt

“We’ve developed different communications strategies for the different segments, and we gained credibility within Visa, as well as with our bank partner, due to the disciplined approach, the quantitative results, and the robust learnings.”

-Visa, Laurie Dornberger, Senior Director of Marketing Consulting

“We did all of this in less than six months. . .Average change over time was reduced 44%. [We had] savings up to \$15 million in downtime. . .we freed up 33,000 line hours of production time across three plants. We didn’t have to make that \$2 million in capital investment. We reduced inventory by \$800,000. We produced no off-quality material due to the MVT during the process.”

-Valspar, Adam Johnstone

“We want you to know how very pleased and satisfied we are with QualPro [and] the QualPro Process. . .[QualPro has] brought to us a rational, logical, reasoned approach that builds on our commitment, demonstrates success, and provides the framework through which our own personnel can be trained in the appropriate methods to successfully work on process improvement.”

-Saint Luke’s Health System, Charles C. Lindström, CEO

To request more information about the seminar, please contact QualPro by phone at (865) 927-0491 or by email at seminars@qualproinc.com.



Seminar Information

Over the course of four days, QualPro's expert consultants teach attendees both basic and advanced forecasting techniques, in addition to other data analysis techniques. QualPro's consultants have extensive experience in both manufacturing and service industries. Using industry-specific examples and class exercises derived from real-world business data, QualPro's consultants tailor course content to the specific needs of seminar participants. With QualPro's assistance, attendees learn how to build highly effective forecasting models.

Attendees are strongly encouraged to bring relevant data from their businesses, which they will analyze under the guidance of QualPro's consultants. Upon completion of the seminar, attendees return to their businesses with:

- Insights derived from expert-guided analysis of their data.
- A strong understanding of regression analysis and other forecasting tools.
- The statistical knowledge and software training necessary to independently create accurate forecasting models.
- An action plan to take back to their company that will enable them to leverage their data to build effective forecasting models.

Course Outline

Introduction

- Forecasting Applications
- Forecasting in QualPro's Twelve-Step Procedure for Improving a Process
- Forecasting Overview
- Basic Techniques That Apply to Regression and Forecasting

Data Visualization

- Scatter Plots
- Line Plots
- Bar Charts
- Run Charts
- Box-and-Whisker Plots
- Pareto Charts
- Histograms

Data Exploration and Preparation

- Time Series Operators
- Identifying Instances of Uncontrolled Variation
- Identifying the Cause of Uncontrolled Variation
- Evaluating the Slope of the Least Squares Line
- "Control Limits" for the Slope and Intercept
- Forecasting with Simple Linear Regression

Forecasting Models

- Multiple Linear Regression
- Time Fixed Effects Models
- Entity Fixed Effects Models
- Time and Entity Fixed Effects Models
- Autoregressive Moving Average (ARMA) Models
- Autoregressive Integrated Moving Average (ARIMA) Models
- Autoregressive Moving Average with Exogenous Inputs (ARMAX) Models
- Exponential Smoothing Models
- Autoregressive Conditional Heteroskedasticity (ARCH) Models
- Vector Autoregression (VAR) Models
- Threshold Regression Models
- Basic Bayesian Threshold Autoregressive Models
- Unobserved-Components Models

Statistical Tests Relevant to Forecasting

Model Evaluation

Process Improvement Applications

"We brought QualPro in and in less than six months, zero capital dollars, zero cost dollars expended, \$23M in terms of additional capacity and increased sales in a sold out business."

-Global Director, E.I. DuPont

Contact

To learn more about this seminar,
please visit us online or call us at the
number below.

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QUALPRO®

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