

The 4th Annual Conference for Capacity and Productivity Improvement

*For the Healthcare
and Pharmaceutical
Industries*



**Philadelphia, PA
Hyatt Regency Philadelphia
at Penn's Landing**

Conference Topics

Keynote Address

Visualize Tomorrow's History, Today...

**A Look at the Future of Planning and Managing Project
Portfolios and Clinical Trials**

R&D

- Strategic Planning
- Resource Investment Analysis & Allocation
- Product Development Prioritization
- Communicating the Solution Across the Organization
- Clinical Trial Recruitment Analysis
- Product Development Cycle Time Time to Market Reduction
- Managing/Reducing Costs
- Portfolio Planning and Analysis

Manufacturing

- New Product Introductions
- Customer Delivery Performance
- Expansion or New Construction
- Outsourcing Decisions
- Prioritization and Implementation of Process Improvement Projects, SixSigma, Lean, or Right First Time Initiatives
- Managing in a changing environment – adding and subtracting products to the manufacturing production mix
- Supply Chain Design & Analysis
- Capacity Planning/Schedule Analysis
- Resource and Asset Management

Healthcare

- Process Improvement Effect on Quality of Care
- Optimizing OR Utilization
- Streamlining Patient Flow
- Transition Planning
- Increased ED Efficiency
- Improved Resource/Staff Utilization

Keynote Speaker



Sam Batterman

Business Intelligence Evangelist with Microsoft Corporation

Visualize Tomorrow's History, Today...

A Look at the Future of Planning and Managing Project Portfolios and Clinical Trials

In today's volatile world we are asked to make decisions impacting the future of our companies based on a sea of data that's displayed in diverse formats, whether in a digital form like a dashboard or analog like traditional paper reports. Most of the time this data is all in the rear view mirror—the history of a project, with little to no regard of prediction and trajectories of the trends we have already collected, but those limited and risky methods of interpreting data are coming to an end.

With a clinical trial environment as the setting, see an example of tomorrow's history, today—fusing together the predictive analytic power of ProModel's sophisticated simulation tools with Microsoft's collaboration and development technologies.

Preliminary Agenda

Thursday, September 16

Registration	8:00 - 9:00
Sessions	9:00 - 12:00
Lunch	12:00 - 1:30
Sessions	1:30 - 5:00
Networking Reception	6:00 - 7:00
Dinner Social	7:00

Friday, September 17

Training	8:00 - 12:00
Lunch	12:00 - 1:00
Training	1:00 - 3:00
Consulting Sessions (Appointment required)	8:00 - 3:00



Training Courses, September 17th

Simulation and Lean Methodologies (\$495)

This six hour course explains basic Lean concepts and demonstrates using Process Simulator to enhance your Lean Process Improvement initiatives.

Portfolio Simulator Overview Class (\$495)

In this six hour course, you will learn to create portfolio scenarios, create and interpret reports and charts, and understand Portfolio Simulation features. Includes hands-on Portfolio Simulator exercises and analysis.

Free ProModel Consulting Sessions

One-on-one access to ProModel's expert pharmaceutical and healthcare simulation consultants. Whether its current projects, discussing future projects, brainstorming on projects you're only thinking about, or just to get more details on anything you heard at the conference, schedule your one hour long time block now as slots will go fast.

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Network

Take advantage of this opportunity to network with executives from the following companies who previously attended:



Who should attend?

Decision-makers in the healthcare and pharmaceutical industries who would like to be able to make faster, more accurate decisions with a higher degree of confidence when it comes to complex strategic and mission critical issues.

Pfizer
Wyeth
Johnson & Johnson
Hoffman La Roche
Northwest Community
Eli Lilly
Sanofi Pasteur
AstraZeneca
Smiths Medical
Intermountain Healthcare
Boehringer Ingelheim
Schering-Plough
Aprecia
Astellas
Biogen
Kromite
Laureate
Shire PLC
Mayo
Baystate
Baylor
Merck

Managers, Directors, and Executives of:

- Research
- Discovery
- Labs
- Strategic Planning
- Development
- Clinical Trials
- Portfolio Analysis & Planning
- Manufacturing
- Capacity Planning & Scheduling
- Supply Chain & Logistics
- O.R.
- Process Improvement
- Hospital Operations
- Facility Planning
- E.D.

Past presentations included:

Alan Poirier

*Director of Portfolio Management & Analytics Group, Pfizer
Resource Forecasting—The Simplified Process*

Robert Lemon

*Sr. Director & Project Leader, Wyeth
Simulation Platforms for New Products and Process
Development*

Yavuz Burak Canbolat, PhD

*Associate Manager, Decision Analysis, Merck
Evaluating Emerging Drug Development Paradigms Using
Simulation*

Paul M. Kaladas, PhD

*Director, Technology Transfer,
Laureate Pharma, Inc.
Planning Future Projects by Analyzing Business Processes
using Portfolio Simulator.*

Jamey Koontz

*Sr. Management Engineer, Baylor Health Care System
OR Overload —Capacity Analysis for a Surgical Services Floor*

Jasemin Yigit

*Project Manager, Olympus
What is the Hold Up? —Identifying Bottlenecks in the GI
Process*

Pharmaceutical Track

Using Portfolio Simulation in Organizational Capacity Optimization

Kevin Doyle, Project Leader, Merck

The variability of the pharmaceutical research and development industry can make even more simple tasks like staffing plans and budget creation a challenge. As budgets are tightened, organizations are increasingly forced to evaluate risks, leverage external capacity, and confidently deliver more with less. At Merck and Co., Inc., simulation has played a role in quickly evaluating different capacity configurations in an attempt to balance the risk of stranding resources vs. not being able to complete the required workload and quantitatively informing fixed vs. flexible staffing plans.

Evaluation of Lean Operational Alternatives in Packaging Operations

Luis Armendariz, Sr. Principal Engineer Consultant, Baxter Healthcare Corp.

In difficult economic times, corporations have few positive cost reduction options that simultaneously improve operational performance. This paper addresses how Baxter Healthcare Corp., BioScience Division, combines simulation modeling and lean principles to identify and evaluate multiple value improvement opportunities in a packaging production line in order to increase capacity and reduce the facility's operating costs.

Through the use of simulation and lean techniques, the team was able to determine the capacity increase and impact in operations by minimizing; WIP inventory, eliminating over-time labor and increasing throughput. Several improvement scenarios were identified independently to provide insight into the size of the operational impact and project selection.

How to Successfully Apply Simulation within Pharma Manufacturing

Joseph Cancelarich, Director of Engineering, Pfizer Inc.

One of the most difficult and risky propositions in using simulation is applying it to the proper application(s). This presentation will discuss the strategy to identify target rich environments in which we should successfully bring simulation to pharmaceutical manufacturing. The presentation will focus on balancing high level improvement models vs. detailed specific point solutions. How to use a variety of simulation tools to bring insights that will help process teams improve equipment utilization, delivery of products and improved returns on capital spending. Included will be a proposed organizational model to develop a modeling culture within a manufacturing organization – making our process teams better.

Modeling of Process Drift and Yield Interdependent Processes

Matthew Gabriel, Manager Process Technology, Sanofi Pasteur

This presentation will describe how ProModel was used to model process drift and the expected product gain/loss based off of proposed in-process testing rules. The project used historical data, regression analysis, and ProModel's programmable features to accurately model time dependent processes and complex interdependent processes. This provided the ability to accurately and stochastically model yield dependency (Task B's yield is contingent upon the yield realized when processed at Task A). Going forward, this has the possibility to have a significant number of applications in the six sigma world since it deals with accurate modeling of process variation, performance over time, and the ramifications of a given on how to operate the process.

Development and Use of a Discrete Event Simulation Tool to Achieve Optimal Resources and Capacity Utilization for a Multi-product Drug Substance Facility

Carnley Norman, MedImmune

As the biopharmaceutical industry faces the pressure to reduce manufacturing costs, the effective use of facility simulation tools to optimize capacity utilization and manage resource cost effectively is becoming increasingly important. Discrete event simulation provides an opportunity to model the complex interdependency and variability associated with a modern biopharmaceutical manufacturing facility. Such a tool was developed to aid in identifying capacity constraints and facilitating the optimal achievement of the throughput objectives for a multi-product drug substance facility. The tool development strategy and related lessons learned are presented. Additionally, a case study on the model verification and use is presented.

Speaker Preview

Pharmaceutical Track (continued)

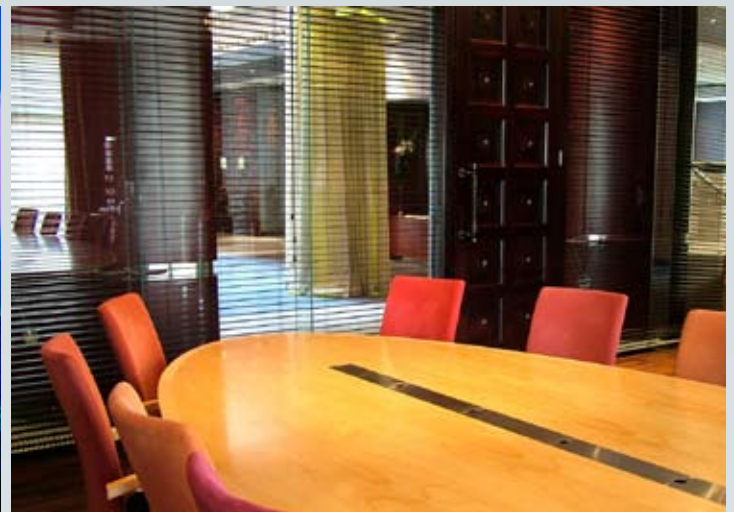
Assessment of Analytical Lab Throughput using ProModel Simulation

Vishal Gupta and Johnson Varghese, MedImmune

As a result of significant increases in the Analytical Laboratory demand, ProModel was contracted to help evaluate the capacity of existing and future Analytical Laboratory testing. The purpose of this initiative was to analyze system throughput based on the impact of different demand scenarios, personnel assignment and personnel skill levels. The analysis enables MedImmune to:

- Accurately determine current and future resource (FTE and Equipment) requirements for the Analytical Laboratories
- Create project test profiles for use in generating an estimate of Analytical laboratory workload based on quantity and phase of supported project
- Identify and test potential initiatives to improve efficiency

The presentation will provide of an overview of this project and the results achieved.



Healthcare Track

Efficiencies in a Medical Office Building: A Simulation Study of a Multispecialty Consolidation at the Carilion Clinic

Jim Montgomery, Sr. Operations Analyst, Carilion Clinic

As the deadline grew closer for occupancy of the new 220,000 sq. ft. Carilion Clinic medical office building, questions arose as to how to maximize the “efficiencies” presumably afforded to a consolidation of 13 medical practices comprising 65 providers. While two simulations were constructed, this presentation will emphasize the first floor orthopedic practice study built to answer the following research questions: 1) Affirm that the four practices and co-located ancillary services would fit within the footprint of the first floor, 2) Insure optimal location of services and patient flow within the allocated space, 3) Determine if an embedded X-ray facility generated adequate capacity to serve the practice, 4) Examine the impact of centralized pre-registration on the patient flow, and 5) Determine optimal staffing of front office personnel.

Impact of Immediate Bedding of Treat and Release Patients in an Urban ER Setting

Scott Strong, Director of Operations, Piedmont Hospital

In order to improve flow through ER, Piedmont Hospital needed to demonstrate that immediate bedding of patients entering the ER would have an overall increase in capacity throughout the Emergency Department. By testing a number of scenarios with Process Simulator, Piedmont Hospital was able to demonstrate that changes in their process of bedding of patients could decrease the LOS for treat and release patients resulting in higher capacity opportunities throughout the ER. Additionally, through simulation, Piedmont hospital was able to demonstrate that the process by which beds were filled within this difficult space could improve the overall utilization of resources. Piedmont ER used a tool, ‘QTP’, to perform demand staff matching and later validated the results within the Piedmont ER Process Simulator model.

Speaker Preview

Healthcare Track (continued)

Ensuring an Efficient Move into a New 9 Story Inpatient Tower

Bob Koci, Cost and Process Improvement, Northwest Community Hospital

Northwest Community Hospital is a 400 bed hospital that completed construction of a new 9 story inpatient tower in 2010. In order to maintain their high standards of care for their patients, Northwest Community Hospital directed a significant amount of resources into properly planning the transition into the new structure. A MedModel simulation solution was a key component assisting the transition team throughout their due diligence. The transition model ensured that Northwest Community Hospital was able to safely and successfully conduct this one day move into the new structure. Additionally, the transition model assisted the transition team in examining the impact of multiple scenarios of moving patients safely into the new structure: varying patient volumes, resources required, impact of physical bottlenecks (e.g. limited number of elevators), estimating turnaround times, ability to move multiple floors simultaneously, etc. This presentation will detail the role the simulation solution provided Northwest Community Hospital's leadership team in effectively planning for a move that required careful orchestration of many different resources.

Effectively Planning for Adding Additional Surgical Capacity

Shawn Dufford, Medical Director, Perioperative Services Exempla Healthcare, Saint Joseph Hospital

Impacting Surgical Services is one of the most lucrative yet difficult endeavors hospital administrators can undertake. While increasing capacity from the OR has obvious financial benefits the impact of changes to these systems are difficult to predict and difficult to accurately identify the appropriate numbers and types of resources needed. Exempla Healthcare, Saint Joseph Hospital, is adding a 7 room ambulatory OR service to its existing OR service which is comprised of 18 OR rooms (14 used regularly) and 7 outpatient OR rooms (3 used regularly). A particularly challenging feature of this addition for Saint Joseph Hospital is that these 7 OR rooms are across the street connected by a walkway. The leadership team at Exempla St. Joseph Hospital were concerned about properly accounting for the additional capacity while ensuring that duplication of ancillary services and other key staffing requirements would not unnecessarily increase operational costs associated with the commensurate rise in the numbers of surgeries.

Exempla St. Joseph Hospital worked collaboratively with ProModel to develop a simulation solution to ensure that the organization was properly prepared for the acquisition of the additional OR suites. The simulation solution addressed the following key issues: predict if all Ortho & Neuro cases can be completed in newly acquired OR space, ensure that the appropriate number of staff was assigned throughout the 3 OR sites, minimizing duplication of personnel can create 10's of thousands of dollars of savings/year, clearly determine the impact on the operation of a SPD for the OR suites, respond to increasing demand on staff by ensuring that processes are designed to allow staff to provide quality care – allow them to respond to increases in workload. This presentation will detail the process Exempla St. Joseph's leadership team undertook to ensure this important transition.

Transforming Operations in a Hospital Pre-Admissions Clinic

Devon Price, Leaders for Global Operations (LGO) Fellow, Massachusetts Institute of Technology

Massachusetts General Hospital (MGH) is one of the largest hospitals in the US. It operates over 900 beds and completes approximately 40,000 surgical cases per year. In 2009, MGH partnered with MIT's Sloan School of Management and Leaders for Global Operations program to develop strategies to improve patient flow while reducing the cost of care.

This talk details work done with the Pre-Admissions Testing Area (PATA) to double throughput and cut patient wait time in half without adding capital or operating expenses. Data-driven simulation, operations management and Lean principles were used to understand current operations, identify improvement opportunities and evaluate proposed changes.

The result of the work is a transformation plan that achieves clinic performance objectives, saves the hospital a \$3.5M capital outlay, and has motivated cultural change – a key to success that previous efforts have failed to achieve.

CONTACT INFORMATION

Register

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Country: _____

Phone: (____) _____

Fax: (____) _____

Email: _____

PAYMENT OPTIONS

Credit Card
 VISA MASTERCARD AMERICAN EXPRESS DISCOVER
 Credit Card Number: _____
 Expiration Date MONTH DAY YEAR ____ / ____ / _____

REGISTRATION DETAILS

Free one-hour session with ProModel consultant
 (Times will be scheduled for Friday, September 17th, 8am-3pm.)



CONFERENCE PACKAGE

Please choose your conference and workshop preferences.

Conference \$495 (September 16th)
 (Special promotional rate of \$395 before July 26th)

Conference Training Courses
 (September 17th, Please Choose One)

Simulation and Lean Methodologies (\$495)

Portfolio Simulator Overview Class (\$495)

To register, please fax this form to: (801) 226.6046 or visit our online store: www.promodel.com



Accommodations

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Contact the Hyatt Regency Philadelphia at Penn's Landing directly at 1-800-233-1234 and specify that you are with ProModel to get the discounted rate. The hotel rate is \$179 per night. Please call soon, space is limited.

<http://pennslanding.hyatt.com/hyatt/hotels/index.jsp>

Contact Information

If you are interested in presenting or sponsoring an event at the conference, please contact Christine Bunker at cbunker@promodel.com.

If you have any questions, please contact Christine at (801) 223-4601.

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