



Would you like a more systematic, **EFFECTIVE WAY**
to assure the **MAXIMUM PRODUCTIVITY** and quality
of your **PLASTIC PACKAGING PROCESSES**?
How about an investment in methods that typically

Realize your full profit potential with Design of Experiments!

Modeling and Optimization of Plastic Packaging Manufacturing Processes

Lawrence Mucha – THE ZDM GROUP of Atlanta, GA USA

May 15 thru 17

Buckhead Center (Across from Lenox Square Shopping Center)

3475 Lenox Street NE, Suite 400

Atlanta, GA 30326 Phone : 404.814.0001

Objectives:

Learn how to design, examine and analyze Designed Experiments (DOE) for the most common challenges in plastics packaging manufacturing processes including injection / extrusion / stretch and blow molding of PET , extrusion / blow for PE and PP – such as stress cracking, consistency of material distribution, top load resistance, dimensional consistency, visual defects and cycle and weight reduction.

Themes:

- Workshop with process simulations to demonstrate the nature of plastics processing challenges
- Basic Statistics – distributions, parameters and statistics, differentiation between noise and real effects (the concept of statistical significance)
- How to design factorial DOE's to optimize processes
- The design and analysis of DOE's with Design Expert software
- Workshops with process simulations to practice the design and analysis of factorial DOE's
- Introduction to scatter diagrams to relate material properties and product functionality
- The development of process simulations
- SOP's for the design, optimization and development of processes and products.

Experience the benefits of DOE first hand! Receive free plastics molding process simulations to practice the application of DOE, and use them to train others!



We invite you to learn how to maximize productivity and quality of your plastic packaging manufacturing processes at our upcoming workshop on Optimization of Plastics Packaging Manufacturing Processes with Statistically Designed Experiments to be held near the center of Atlanta, Georgia in exciting Buckhead. At the completion of the workshop you can begin designing and running DOE's and immediately bring a return on the investment in the workshop many times over.

Have a look at our web page at www.thezdmgroup.com for an easy way to register or to learn more about how we can support you in meeting your organization's productivity and quality goals. The ZDM Group has successfully provided statistically sound solutions for productivity and quality for plastics packaging manufacturers on six of the world's seven continents for over fifteen years. Please feel free to contact our offices or me directly, should you have any questions or would like further information. I look forward to meeting you at the workshop in May.

Sincerely,
 Larry Mucha
 Vice President – The ZDM Group, LLC
lmucha@thezdmgroup.com

[Lawrence S. Mucha PMP/ CPP](#)

[Miami University, Oxford, Ohio -- B.S. Chemistry](#)
[Columbia University, Georgia Institute of Technology -- Applied Statistics, SPC, DOE](#)
[Ohio University – Psychology, Education](#)

Lawrence S. Mucha is a management professional with over thirty years experience in the beverage and packaging industry. He is Vice President and co-owner of The ZDM Group LLC. Prior to joining ZDM Group in 2004 Larry spent 25 years with The Coca-Cola Company. During his career with Coke he was responsible for several top priority, highly visible packaging projects as well as Director of Future Technologies, Director of Quantum Leap, Director of Plastics Packaging Development, and Director of Technical Packaging Department, Northwest European Division, London. Larry began his career as a packaging engineer. He has been a practitioner of statistics, SPC, and DOE for over 28 years, most recently with ZDM as both a practitioner and instructor of Six Sigma methodologies. Larry holds three package patents and has two pending. He is certified by the Project Management Institute as a Project Management Professional, a Certified Packaging Professional by the Institute of Packaging Professionals and a Six Sigma Master Black Belt. He is a member of American Chemical Society, Innovation Network, World Future Society, Project Management Institute, The American Society of Quality, The International Society of Beverage Technologists, and Institute of Packaging Professionals. He is a frequent speaker at conferences and author of various articles for professional publications.

REGISTRATION FORM

Four ways to register:

- Send this form by fax to the attention of: Registrar (770) 928-9643 (USA)
- Phone to 770 592-0816 (USA)
- E-mail to info@thezdmgroup.com attention Registrar
- On the Web at register@thezdmgroup.com

For international payments, we recommend payment by bank transfer. All payments should be in US dollars and through a US bank. The course fee is US \$1175 per person if completing payment at least 10 days before the first day of the course (April 30, 2007) and US \$1350 after April 30, 2007. We offer discounts of 15% per participant when two or more people register from the same organization.

Name(s): _____

Title(s): _____

Company: _____

Address: _____

City: _____ State/ Province: _____ Zip: _____

Phone(s): _____ Fax: _____

E-mail(s): _____