



Roland Mann
AND ASSOCIATES



Improve Productivity of New Product Development: Designing with the End in Mind: Strategies for Usability, Manufacturability, and Co-Development

Date: **September 14, 2004**
 Location: Center for Training & Development
 North Hennepin Community College
 7411 85th Avenue North
 Brooklyn Park, MN 55445 (763) 424-0880
 Investment: \$229 per person, **\$149 before Aug 31** (includes lunch)
 Registration: 763-494-9096 #3, Fax 763-201-7053
<http://www.improveproducts.com/store.html>

Learning Objectives:

1. Learn best practices in design for manufacturability and usability.
2. Hear the rationale behind establishing a co-development relationship.
3. Learn do's and don't's from successful innovative companies

- 8:45 a.m. **Program introduction**
- 9:00 a.m. **Human Centered Design. Robert North, Founder, Human Centered Strategies.** As medical devices reach more patients and users in complex and diverse settings, today's competition in the medical device marketplace requires attention to two critical design drivers: superior ease-of-use and minimal risk of use error. Techniques like Cognitive Walk-through-talk-throughs are designed to identify cognitive usability and interaction issues early in design, saving valuable development time and mitigating use error risk in post-market phases. This presentation will cover case studies and best practices in design of medical device products.
- 10:00 a.m. **Design for Usability. Anne Mickelson, Usability Engineer. Minnetronix Inc.** Designing a product with the user's needs as the key driver seems to be a no-brainer but it is easier said than done. This presentation will describe a formal process used to design the graphical user interface for a highly configurable system that is easy to learn and use, while minimizing inherent risk of human error during complex clinical procedures.
- 11:00 a.m. **Break**
- 11:15 a.m. **Accelerating Innovation and Reducing Cycle Time through Co-Development. Shayne Smith, VP of Manufacturing Services, Wardrop Technology Solutions.** Collaborative product development among partners and suppliers may be the holy grail for achieving breakthrough innovation, improved product designs and enormous time-to-market advantage. However, co-development is difficult to do well, and companies working across corporate boundaries often do so ad-hoc with highly varying degrees of success. This discussion will educate participants on development and effective execution of co-development best practices, issues and opportunities, and the business, cultural and management requirements necessary for success.
- 12:15 p.m. **Lunch Product Bombs: What were they thinking?? – Gary Jader, President, Product Development & Management Association-Minnesota and Ideas on the Wall.**
- 1:00 p.m. **Using the best tools to improve product design. Bob Worrell, President, Worrell Design.** Visualizing and implementing fresh advanced designs for new products is difficult as evidenced by high product failure rates. Tools for clarifying the "fuzzy front end", based in best practice quality tools like QFD and DFSS, can improve the success rate in new product development. This presentation will highlight award-winning designs and processes used to create innovative commercially successful new products.
- 2:00 p.m. **Break**
- 2:15 p.m. **Excellence in Design for Packaging. Gerry Gunderson, VP-Engineering, Quality Tech Services.** The design of your medical device package will impact more than just the protection and presentation of your device. By considering all of the users of the package, you can avoid a sub-optimal design and improve your ROI. This presentation will help you to: discover the external and internal users of your package; critically evaluate your package design in light of your user's (conflicting) requirements; and identify cost-saving package design features and techniques.
- 3:15 p.m. **Case Study. Richard Stein, Principal Systems Engineer, Guidant Corporation.** Best Practices in Medical Device Design.
- 4:15 p.m. **Program ends**

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