PERRY K. PARENDO

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SUMMARY

Product development professional with over 28 years experience in medical, automotive, aerospace and defense industries. Includes responsibility for multi-million dollar projects and working with international suppliers. Typical engagement provides value from $400k to $600k to numerous companies by using organization, analysis, logic and intuition throughout the product lifecycle. While I help when a company has hit the wall, it is much easier and smoother for the company when they involve me early to expose the potential gaps to reduce risk.

PROFESSIONAL EXPERIENCE

PERRY'S SOLUTIONS, INC. – Stillwater, MN **2000-present**
Founder

- Developed a design solution that provides predictable end of development completion. A typical project would tread water for about 6 months at the end of the project before meeting requirements. A new development test approach could meet these demanding requirements and regulations, right out of the box. This same approach has successfully been repeated on projects for the last 6 years.
- Worked with design team and vendor for high reliability medical product. After years of product development, found that there was a need for a redesign based on our new strategic testing. Within a few months, we were able to test and prove with confidence the new design would perform as needed and be reliable. Using rapid prototyping allowed expedited Design of Experiment evaluation to speed product to market.
- Provide upfront, early stage technology assessments and risk reduction strategies for complex, multiple technology situations (includes mechanical, electrical and software components). This has modified development plans for component selection, test strategy and other mitigation activities. This increases project schedule predictability and improves field performance.
- Perform root cause analysis in multiple vendor and multiple customer environments while developing short term and long term solutions to minimize negative financial impacts. Methodologies vary to address individual project needs and provide a timely resolution.
- Provide project management for FDA regulated device. Balancing multiple models, wide spread vendor network and new clinical indications for improved product performance in practical setting.
- Define data gathering and analysis plan for multiple year concern regarding long term capability of product family. Create surrogate indicators and accelerated testing methods to improve future testing.
- Assess material change proposal with multiple company impact. Test method validity provided the credibility for major customer to accept the "no improvement" conclusion.
- Found unexpected manufacturing solution to fix leaky product. Vendor and equipment supplier said it was impossible, but in a few weeks we were able to fix a 6 month problem.
- During development, set up a one week test that increased cycle time by 17% after months of development and stagnant progress. Hit the threshold performance level required by the CEO for the project to be viable.
- Assist team to improve volume and cycle time performance in manufacturing. Because of

overwhelming success of new product launch, without this work output the company would have had serious issues – as it was, meeting demand was a challenge. This was accomplished without massive capital spending, but instead intelligent process design and balancing.

- Provided direction for data gathering, critical analysis and design influence for electro-mechanical, life sustaining device. By confirming the design or not, the project risks were analytically understood and the drive for product launch could be specified.
- Provided clinical study design guidance, sample size determination and clinical data analysis for high performance product.
- Created 4 day applied statistical tools course. Includes processes for assessing data, dealing with non-normal data and sample size determination. Solved several real world "problems" during break that students had worked on for weeks. Materials created through application during consulting engagements. Also created complimentary ½ day and full day classes as introduction to these topics.
- Transitioned Design of Experiment training program from St. Thomas to multiple companies with emphasis on application within the company. Results in strong project identification and improved decision making. Implementation of the tools occurs by a high percentage of participants and over a period of many years. By including a work project during training, the class pays for itself prior to the completion of the class.
- Training topics include Design of Experiments, project management, Failure Modes and Effects analysis, statistics, Risk Management, Root Cause Analysis, product requirements development and New Product Development process.
- Provides Design of Experiments and Program Management services to various companies through the Midwest. This includes project support and training. Audiences with international representation.
- Implementation in various industries and application areas. The above examples show a representative mix – for confidential reasons, not all work performed can be discussed.
- Capable of using top software programs including Design Ease, Design Expert, JMP, SPC for Excel and Minitab.
- For additional information about the company, visit www.PerrysSolutions.com

UNIVERSITY OF ST. THOMAS – St. Paul, MN **1996 – Present**
Adjunct Lecturer

- Developed and instructing a Masters course for Design of Experiments (DOE) in product development exceeding department expectations.
- Students have saved an estimated $8,525k on 215 Design of Experiments projects from a variety of industries. These simple one month projects have demonstrated ability to save on average 3 months of project schedule
- Provided Director of Engineering level guidance for Senior Design class for electrical and mechanical engineering students. Included delivery of 30 industrial projects for area companies, using best practices of each organization. Conducted as a 3M Fellow.

GUIDANT Corporation – St. Paul, MN **2002 – 2006**
Project Manager

- Developed a new corporate class for Design of Experiments. Includes teaching in-house and at international locations.
- Provide support to various departments for DOE projects including vendor applications.
- As project manager of manufacturing process development team, completed our validation effort in a record time. This included leading development team of test system for wireless

technology.
- Led team to perform project reviews and interviews to improve department New Product Development process. Led to involvement with company wide NPD process improvement initiative to improve planning and tool usage.
- Coached project leads on project management applied to software development.

MEDTRONIC INC. – Minneapolis, MN **2000 – 2002**
Project Manager
- Developed qualification test strategy for FDA real time review submittal. This method saved at least four months for the approval cycle. Included DOE test methodology.
- Provided internal training to experienced DOE users. Provided support to various DOE projects.
- Created New Product Development improvement actions to improve our department performance. Included cost estimating, budgeting and protocol updates.
- Used Design of Experiments to reduce schedule of battery development. Completed the 18 month project in 11 months, including a 3 week FDA approval. This project included the design, manufacturing process and tooling requirements for the new battery.

UNITED DEFENSE L.P. (formerly FMC Corporation) – Minneapolis, MN **1992 – 2000**
Project Manager and Development Engineer
- Documented savings of over $250k upstream in design by developing and teaching a Design of Experiments class for the division. Personally used Design of Experiments in a variety of areas to improve product design. Largest application was for a war game.
- Improved divisional manufacturing processes as co-leader of effort. Reduced defects to 25% of original levels on high running raw material using SPC in foundry.
- Created a new cost estimating system for divisional projects.
- Developed test protocol for multiple vendors. Consistent test execution allowed best performer to be identified in a timely manner.
- Developed and executed plans to resolve the highest risk on the project for a billion dollar program. Presented results as scheduled and risk was reduced.
- Provided estimates/ calculations for cost, schedule, risk and reliability of projects.
- Organized information in five weeks to make a decision that had been argued for nine months by other groups. Resulted in the customer redefining their requirements to better meet needs.
- Because of a change to composite materials for first time use in an Army ground vehicle structure, my team had to complete 3 years of development in 1 ½ years. After setting the team up for success on this $10M effort, I acquired responsibility for the chassis development which was significantly behind schedule. This $20M effort was pulled together and delivered to the project.

ROSEMOUNT INC. – Minneapolis, MN **1988 – 1991**

Design and Manufacturing Engineer
- Instituted Design of Experiments with motor driven systems to reduce product development time and resolve manufacturing issues.
- Reduced defects by 16% in soldering operation after implementing SPC tools.
- Created new Engineering change process. Resulted in faster and more accurate changes.

GENERAL MOTORS – Detroit, MI **1986-1987**

Facilities Engineer

- DOE of painting process for new vehicle. Assembly plant was going through refurbishment when process testing was being conducted. Recommendations resulted in no ramp up issues for the new plant – an unheard of event.

EDUCATION

BSME, Design and Controls Emphasis – University of Minnesota, Minneapolis, MN – 3.55 GPA

TECHNOLOGY AND PROCESS EXPERIENCE

- Welding/ Soldering
- Electronics
- Motors/ Gears
- Mechanisms
- Adhesives
- Simulations
- Cleaning
- Stampings
- Biological
- Coating/ Painting
- Batteries
- Molding
- Chemistry
- Powder
- Automation
- Heat treat
- Machining/ Laser cutting
- Apparel
- Glassing
- Software
- Composites
- Combustion
- Structural
- Magnetic
- Heat Transfer
- Plating
- Agriculture

PROFESSIONAL DEVELOPMENT

- Program/ project Management
- Creativity
- Resolving Conflicts
- Interpersonal Skills
- FMEA
- Reducing Product Development Time
- Technical Leadership
- Implementing Innovation

PROFESSIONAL ACHIEVEMENTS

- Published articles on DOE and SPC in trade industry magazines
- Conference talks on New Product Development, Design of Experiments and Risk Management. Trade group talks on Decision Making, Innovation and Root Cause Analysis.
- Radio interviews regarding problem solving, redefining your business and networking
- Feature article in Star Tribune newspaper, Minneapolis, Minnesota
- Invited for University of Minnesota panel regarding use of LinkedIn, and for State of Minnesota Panel for job search (match) techniques
- Published four papers on cost estimating, technology trends and Design of Experiments
- Registered as a Professional Engineer in the State of Minnesota

COMMUNITY INVOLVEMENT

- Board of Directors for non-profit organization since 2013
- Minnesota Quality Award Evaluator – 2011, 2012 and 2013
- Life Science Alley Advisory Board, former co-chair for Manufacturing & Quality programs
- Mentor for University of Minnesota Engineering students
- Volunteer youth sports coach, serving on community basketball commission. Since 1991