

Sr. Systems Engineer Consultant

Experienced professional with hands-on experience in: Lean-Six Sigma/Process Improvement * Systems Engineering * Value Engineering * Industrial Engineering * Project Management * Risk Management * Quality Assurance & Management * Training Development and Delivery * Root Cause Analysis and Quality Improvement * Facility and Infrastructure Asset Planning * New Product/Process Development * Systems Dynamics Modeling * Requirements Definition and Management * Requirements Validation and Verification * Experienced with SE Requirements Tools – DOORs , SLATE-Architect, RDD-100, Requisite Pro * Experienced with implementation of DOE O 413.1 – Project Management through DOE G 413.1 Managing Design and Construction Using Systems Engineering. Experienced in requirements development and management for the **Boeing 787 program and **flight control systems for Boeing 737 & 757 aircraft.****

BSIE
Certified Value Specialist (CVS) ◆

Masters Degree - Systems Engineering
Certified Manufacturing Engineer (CMfgE) ◆

MBA
Lean-Six Sigma

HIGHLIGHT OF ACCOMPLISHMENTS:

- **Healthcare Systems Redesign Engineer** – Apply lean six sigma methodologies and systems engineering principals including value engineering and to improve patient care through increased access to clinical appointments, improved flow, reduced wait time and other systems improvements.
- **Senior Systems Engineering Consultant** on the design and development of the **Boeing 787 Dreamliner** and **Boeing's CORE Systems Engineering** group supporting all wide bodied commercial aircraft in DFM/A, lean-six sigma and value engineering methods and techniques. (**Boeing**)
- **Lead Value Engineer/Lean-Six Sigma Facilitator** on various projects resulting in an estimated **\$64.5M** in savings through application of Value Engineering or Six Sigma methodologies. (**INL, Boeing, & Raytheon**)
- **Lead Systems Engineer and Project Engineer** for a wide variety of projects responsible for development of management plans for key projects and organizations utilizing advanced Industrial and Systems Engineering techniques and methodologies. (**Boeing, INL**)
- **Lead Systems Engineer Information Technologies (IT) and Telecommunications** implemented a configuration management program for the IT systems and other key projects. (**INL**)
- **Project manager and control account manager** on several **\$10M** control accounts, monitored earned value, project progress and resolved key project issues with stakeholders. (**INL**)

EXPERIENCE SUMMARY

George E. Whalen VA Hospital
Systems Redesign Engineer

Salt Lake City, UT
08/2009 – 01/2010

Apply systems engineering principals including value engineering and lean six sigma methodologies to improve patient care through increased access to clinical appointments, improved flow, reduced wait time and other systems improvements. Train staff in systems redesign principals and facilitate Rapid Process Improvement Workshops. Consult to root cause analysis teams and other teams to provide technical expertise in process improvement, root cause analysis and other methodologies. Work with facility planners and designers to design and implement improvements to facilities and equipment.

Boeing Commercial Aircraft Company
Sr. Systems Engineering Consultant

Everett, WA
02/2006 – 02/2009

Sr. Consultant to the Boeing 787 Dreamliner systems engineering team providing requirements analysis and management including **validation and verification of requirements** necessary for aircraft and production system **certification** by the **FAA. Managed over 3,000 requirements** in the company's DOORs database controlling configuration management and working with stakeholders to prepare change request to be presented to the requirements review board for approval. (**02/2006 – 04/2008**)

Sr. Consultant to the Boeing CORE Systems Engineering providing comprehensive **general systems engineering support for the design and development** of new products and redesign of existing products for the **Boeing 787 and 777 aircraft using DFM/A and Value Engineering**. Worked with design teams to resolve quality and reliability problems, reduce cost and weight, and improve performance through application and training in proven improvement techniques including **lean-six sigma**, and **value engineering**. (**04/2008 – 02/2009**)

KEY ACCOMPLISHMENTS:

- **DOORs Requirements engineering support** for the design and development of the Boeing 787 Dreamliner.
- Supported Boeing 787 Dreamliner design teams in **weight reduction, cargo bay L-Beam deflection and cargo bay lining flammability studies**. Received kudos for **successfully managing team deliverables leading to a successful critical design review (CDR)** and implementation of changes.
- **Facilitated Phase I Lean Design Build Roadmap (LDBR)** workshops (60 – 70 engineers) and consulted to LDBR core team (**6 facilitators**) as an expert in value engineering to train the LDBR facilitators in the Value Engineering methodology. Facilitated **Product Cost Improvement Program (PCIP) workshops** focused on reducing costs on existing Boeing 777, 747 and 767 programs (**100 – 150 engineers**).
- **Provided Value Engineering support to the Lean Enterprise Office (LEO)** on key strategic programs to identify and improve market driven features for the 777 aircraft.
- Consulted to the product development team on implementing **Market Drive Target Cost (MDTC)** methodology to achieve an optimal balance between performance requirements and cost.
- Supported Boeing **quality department and electrical engineering** group in various **root cause analysis studies** to resolve issues and improve performance.

Idaho National Laboratory
Advisory Engineer – Systems Engineering

Idaho Falls, ID
02/1990 – 02/2006

Lead and supported project teams responsible for the success of key projects at the Idaho National Laboratory. Activities include **Lead Systems Engineer** for a wide variety of projects responsible for development of management plans for key projects and organizations utilizing advanced Industrial and Systems Engineering techniques and methodologies. Improved performance on key projects using six sigma and value engineering. **Supervised and performed requirements analysis and flow down** of requirements on key projects.

Project Engineer and **control account manager** on various projects. Developed **cost estimates** and performed economic analysis for justification of various capital equipment projects. Planned and executed **Value Engineering** studies and worked with stakeholders to implement results.

KEY ACCOMPLISHMENTS:

- **Lead Systems Engineer** for a wide variety of projects responsible for development of management plans for key projects and organizations utilizing advanced Industrial and Systems Engineering techniques and methodologies.
- **Lead Systems Engineer Information Technologies (IT) and Telecommunications** implemented a configuration management program for the IT systems and lead SE on other key projects.
- **Lead Systems Engineer – Requirements Engineering** for the OU-7/10 Stage II remote retrieval demonstration project. Lead group of 10 SEs using SLATE and RDD-100 to identify, capture and flow-down requirements from stakeholders and regulatory sources for the design and develop of a remote retrieval system to be designed to retrieve, characterize and repackage transuranic (TRU) waste buried at the Idaho National Laboratory. Developed Project Requirements Document (PRD) and Systems Requirements Document (SRD) and Technical Functional Requirements (TFR). Results from this effort provided input in the Environmental Impact Statement for the project.
- **Lead SE for Trade-off studies** – Designed and facilitated trade-off studies to develop selected alternatives to be designed on various projects including OU 7/10 (Pit 9), RH-TRU Waste retrieval and packaging project, and Radioactive Waste Pools D&D Project.

Lead Systems Engineer - Spent Nuclear Fuel Risk Management Plan Development - Worked with project personnel and company experts to identify, quantify, and document risks associated with the Spent Nuclear Fuel Program at the Idaho National Laboratory. Implemented a structured, formal, and disciplined approach for controlling Spent Nuclear Fuel Program above-normal risks to an acceptable level and developed risk-handling strategies (RHSs) to demonstrate program readiness to begin program execution.

- **Risk Analysis SME** – Point of contact for risk assessments and risk management plan development for key projects at the INL.
- **Requirements Systems Engineer** on other key projects at the INL for CH2M-WG, LLC using Requisite-Pro requirements software to capture and allocate requirements to project functions.

Raytheon Aircraft Inc., Montek Div.
Formerly E-Systems, Montek Div.
Sr. Industrial Engineer &
Pricing and Contracts Administrator

Salt Lake City, UT

05/1983 – 01/1990

Progressive performance history of individual contributions and supervision of project teams responsible for the successful bidding and execution of key projects. Responsibilities included **Industrial Engineering** studies and development of a standard hour predetermined time system used in estimating new and follow-on products including **Boeing 737 and 757 Flight Control Systems**, Electro-mechanical actuation systems and ground based Navigational Aids systems. Also, implemented a **Value Engineering Program** and performed as **Design-to-Cost Program Manager** responsible for management of division **design-to-cost (DTC)** efforts and **Pricing and Contracts Administrator** responsible for the coordination, preparation and delivery of **price proposals** to various commercial and DOD customers.

KEY ACCOMPLISHMENTS:

- **Industrial Engineering** studies and development of a standard hour predetermined time system used in estimating labor hours for new and follow-on products including **Boeing 737 and 757 Flight Control Systems**.
 - **Prepared cost proposals and bids** on contracts for DOD and commercial customers contributing to the success of the division including **Boeing 737 and 757 Flight Control Systems**.
 - **Implemented a Value Engineering Program** resulting in **\$6.4M cost savings** in first year of implementation win of a **5-year long term business agreement** with a key aerospace customer worth approximately **\$300M** (Raytheon)
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EDUCATION AND PROFESSIONAL DEVELOPMENT

M'Engr in Systems Engineering, 2003, University of Idaho, Idaho Falls, ID
Master's of Business Administration, 1986, University of Phoenix, Salt Lake City, Utah, Thesis and Project - "Improving Product Development with Value Analysis/Value Engineering"
Bachelor of Science in Industrial Engineering, 1977, University of Utah, SLC, Utah
Six Sigma Black Belt, Idaho State University Continuing Education, Pocatello, ID September 2010 (In Progress)
Master's Certificate in Project Management, Villanova University, Philadelphia, PA, October 2004
Six Sigma Yellow Belt, Qual Tech, Inc., Bectel BWXT Employee Training, 3/2002

COMPUTER SKILLS

Trained and experienced in DOORS, SLATE, RequisitePro and RDD-100
Experienced with mini-tab and SAS statistical software tools.
Worked with ARENA and Extend modeling tools.
Trained and experienced with VENSIM and STELLA/I-THINK systems dynamics tools.
Skilled in Microsoft products including MS Word, Excel, Access, PowerPoint, Visio and MS Project

SECURITY CLEARANCE HISTORY

- **Secret:** 12/1983 – 12/1988, DISCO, E-Systems, Inc., Montek Div, SLC, UT.
 - **Secret/SCI:** 12/1988 – 2/1990, DISCO, E-Systems, Inc., Montek Div, SLC, UT.
 - **DOE L Clearance:** 6/1991 – 1/2006 - DOE, Idaho National Engineering Laboratory, Idaho Falls, ID
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OTHER EXPERIENCE

Facilities Engineer, EIMCO Mining Machinery Div., SLC, Utah responsible for layout and planning of major facility consolidation of two manufacturing facilities totaling 356,000 sq ft. to 208,000 sq ft. as well as other projects.

Manufacturing Engineer, EIMCO Process Equipment Division, SLC, Utah

Industrial Engineer, Envirotech, Inc. Rubber Engineering, Div. Salt Lake City, UT responsible for standard hour wage incentive program and planning of new manufacturing space.

Associate Production Engineer, Sperry Defense Systems, Inc., SLC, Utah

Consultant, Los Alamos Technical Associates, Simulation and Modeling of Spent Nuclear Fuel from INL to Yucca Mountain using ARENA software material handling

Consultant, Pillsbury, Inc., Shelly, ID Developed Performance Based Maintenance Training Program

Consultant, Sorenson Research, Abbot Laboratories, Inc., SLC, UT, Work Measurement and Cost Reduction