

Clifford R. Kettemborough, Ph.D., D.B.A

QA, (I)V&V, Testing Qualifications and Experiences

- Performed extensive **testing**, at all levels – unit, component, subsystem, system/integration, functional, regression, performance – as a developer on a variety of machines architectures, OSs, programming languages, and methodologies (structured, modular, OO, XP) for commercial (business applications), engineering/scientific, and aerospace/defense (real-time) environments.
- Developed numerous testing related **documentation** and **templates**, such as: Test Plan, Test Environment, Test Cases, Test Procedures, Test Scripts and testing results capturing (test results/errors/defects and action log databases).
- Performed and managed (S/W and Systems) **QA activities**, in particular at NASA/JPL, Transamerica FS, Maxicare HP and LA County. For example, developed QA processes, participated in formal inspections at projects milestones, reviewed all levels of documentation and code, developed checking criteria and associated checklist, developed software metrics/defects, performed their collection and interpretation.
- Performed and managed (S/W and Systems) **(I) V&V (Independent Verification and Validation)**, in particular at Rockwell Int'l as a manager of IV&V on the Space Station. Developed all related processes and documentation for performing the (I) V&V function within a large engineering environment.
- Lead the efforts of very large scale **testing and simulation** of a highly complex project while at Boeing – FCS (Future Combat Systems) involving thousands of interconnected machines, running a variety of OSs in a real-time environment.
- Lead the **extensive testing efforts involved in Y2K** while at NASA/JPL and was recognized with 'NASA/JPL Leadership Award for Y2K Project Successful Completion, **ahead of schedule and within budget.**'
- Developed **Testing, QA and (V&V) documentation** for DoD (2167A, 2168B) – known as the most complex and through in any business, since testing results for such projects require a 99%+ level of reliability and confidence.
- Managed outsourced and off-shoring very large projects involving **technology migration**, thus **extensive testing** (hundreds of applications and thousands of workstations) before deployment. Consequently, lead the **vendor selection and managed premier contracts and SLAs** with IBM, Microsoft, HP, Xerox, Cognizant, Infosys, WiPro, etc.
- Due to one of my strong personality traits – process, methodology, formality, discipline, anti-waste – I proposed or I was part of a team pursuing the development of **Best Practices and Centers of Excellence** when it comes to Quality and Testing, organizational transformation, creating “To Be” scenarios. Notable are my accomplishments while at Boeing, where I was a member of Boeing Leadership Society.
- Strong proponent and user of **testing tools** to achieve high level of **testing automation**.
- Very **customer-oriented/centric**. Developed and ran **UAT (User Acceptance Testing)** and **PIR (Post Implementation Review)**.
- A **champion and leader** when it comes to **quality!** Worked and love to work on areas such as **CMMI (Capability Maturity Model)**, **COBIT**, **Kanban (Lean Processes, Six Sigma)**, **Kaizen/CPI (Continuous Process Improvement)**, **TQM/LTQ**.
 - Strong skills and experiences in area of: analysis, problem solving, driving-change, customer focus, integrity and relationship building skills, consensus building skills, success in influencing and ability to delivery measurable results.

- Experience using **organizational change management**, transformation, facilitative leadership, and project management methodologies.
- Demonstrated ability to collaborate, communicate, influence and work effectively with a broad cross section of functional areas.
- Experience with **diverse teams and projects or programs** in the implementation of large-scale, complex IT process initiatives that achieved financial benefits.
- Experience in successful process improvement initiatives working with large, geographically dispersed team of technical professionals.
- Deep, working knowledge of **IT/IT Service Management**: Service Delivery and Service Support, Asset Management, Change Management, Release Management, Configuration Management, Incident Management, Problem Management.
- Extensive **formal education, training and certifications** in the areas of QA, Testing, and V&V:
 - **Malcolm Baldrige and Balanced Scorecard** training, *Boeing Corp.*
 - **Software Cost Estimation** training (PRICE-H, SEER-SEM)
 - **Six Sigma Black Belt Certification**, *JPL/QASNA*
 - **Certified IT and ISO 9001 Auditor**, *Information Systems Auditing Association*
 - **Certified Quality Analyst**, *Quality Assurance Institute.*
- Extensive college/university **teaching, corporate training/workshop and consulting** experience in the areas of QA, Testing and V&V.