

Paul McCoy

Mount Holly, NJ - Email me on Indeed: [indeed.com/r/Paul-McCoy/3aa455728b9b289b](https://www.indeed.com/r/Paul-McCoy/3aa455728b9b289b)

Extensive experience managing QA teams and testing complex software and hardware systems on government and commercial projects. Using Continuous Process Improvements, Quality is increased and cost/risk decreased. Proven track record starting SW/HW QA test dept. and nurturing into highly effective QA teams locally and globally that improve the product while reducing test cycles

DEMONSTRATED PROFICIENCY IN;

- Successfully starting 4 QA departments develop / train and managing effective local and global QA test teams
- Extremely proficient testing HW and SW for Servers/Windows apps, and embedded software (FW, STB, etc)
- Expert implementing process / procedures / SOP / OP / CAPA at all levels of the company to maximize Quality
- Expert with life cycle management SW systems such as; HP Quality Center 11, 10.0 & 9.1, capture and map test cases to requirements, track test results and defects, and provide periodic reports. Developed procedures and training for the tools
- Expert in defect systems [...] TD 8.2, SCARAB, GNATS, ClearQuest, Elementool) and Admin of same
- Establishing configuration management; build procedures, release control, rev control, problem tracking systems
- Proficient with in house ERP systems, as well as enterprise solutions such as OMNIFY
- Fully versed in the Software Development Life Cycle and in Black Box, Gray Box, White Box testing methods
- Applying a multi - disciplinarian approach to design test scenarios to effectively test products, with better efficiency
- Expert in manual testing of products as well as transitioning teams from manual to automated tests
- Specify/Implement automation SW such as IBM Rational Robot, HP Quick Test Pro 10/11, AutoIt, LabView

WORK EXPERIENCE

QA HW/SW Test Consultant

Self Employes - Mount Holly, NJ - August 2013 to Present

Provide a wide range of QA consulting services, ISO-9000 SW compliance and documentation, training, testing etc

- Latest project is to formalize SW development department process following ISO-9000 format for an aerospace company

QA AND SYSTEMS TEST MANAGER

Petra Solar - South Plainfield, NJ - April 2010 to August 2013

Petra Solar is a clean energy tech company that provides solar and smart grid solutions for utility, residential and military apps.

I was recruited by a former Chrepoint employee, who as the Director of Eng at Petra contacted me to create a test department

- Report to the CIO and the VP of Eng. Attended weekly staff meetings, a reported on various QA metrics
- Defined and created QA positions, hired 4 resources and trained in QA test methodologies
- Responsible for ongoing resource staffing / planning, reviews, establishing career tracks, promotions, awards, dismissals etc.
- Managed an equipment budget of 60k yearly on average. Identified and purchased equipment required for the QA lab

- Successfully replaced an ineffective defect tool "SCARAB" with Quality Center 10.0 to capture requirements and map test plans to them, as well as capture defects with increased test efficiency >50%
- Reduced test cycle times by >5x by introducing formal integration test cycles in the development HW/FW groups
- Worked with SW Development Manager to integrate and test the implementation for TeamForge CollabNet with QC-10
- Designed and built low cost test fixtures such as a Sun rise/set illumination simulator, and a shielded ZigBee RF test bed
- Transitioned the team from manual to automated tests using LabView for HW and QTP 11.5 & .NET for SW tests
- Defined automation test framework for LabView to perform pre certification tests for CSA, IEEE-1547, UL-1741, AS-4777, G8, and Measurement Canada prior to testing at the labs
- Responsible for defining and creating the QA Systems Test process, and provided in house QC-10 training for the company
- Created Master QA schedules, architected test planning, developed test plans, assigned test leads, held defect review meetings, ran queries in QC-10 and present test reports and progress updates to Senior management
- Defined and implemented rapid test cycle approach to define criticality levels for releases to support business objectives
- Provided QA / process/ continuous process improvement training to the company
- Implemented a formal Corrective And Preventive Action system to catalog prioritize / track progress / and follow up audits
- Supported manufacturing issues, reviewed Pareto data, ran validation tests for manufacturing workmanship reliability audits

R&D QA VALIDATION MANAGER / SENIOR QA ENGINEER

CheckPoint Sys - Thorofare, NJ - March 2006 to April 2010

Checkpoint Systems, Inc manufactures and markets technology-driven integrated solutions to protect people and assets

- Hired as a contractor to integrate a newly formed QA team. Established process, guidelines and standardized methods to unify the team s (1 yr)
- My first assignment was to become the subject matter expert for HP QC-9 which was not being used effectively. Developed best practices and guidelines, provided QC training, in order to use the tool going forward, which I was able to do within a few months
- Served as acting QA manager reporting to the Director - World Wide QA until re-orged documentation manager was in place
- After new manager was in place, I was hired as a direct employee and mentored new manager in QA methodologies and managing test
- Oversaw all QA projects within the group, and was assigned as QA lead to the highest priority projects within Checkpoint
- Provided daily coordination and direction to the test team and provided QA Manager daily updates
- Reported on test status vr's business objectives, compiled periodic test reports, presented metrics and trending reports to Senior management
- Challenged by the V.P. of R&D, and successfully accomplished, training and managing of inexperienced QA personnel in China
- Developed process for daily tasking of workload between off shore teams and Checkpoint
- Provide training / best practices, implement test methods / procedures for using HP's Test Director 8.2 and Quality Center 9.1

- Implemented custom fields in QC-9 to generate and gather metrics to identify weak areas in development (% issues fixed going back to open, % high priority defects vrs' low priority defects (total and fixed), defect per system/sub system, etc)
- Successfully implemented innovative methods to reduce the test duration on milestone projects while insuring the highest quality
 - o Utilize a phased test approach, to test the most critical high risk items first and less critical items as secondary tests
 - o Moved initial testing to occur much earlier during the "Development Integration test phase" to uncover defects sooner
- Reduced the time (and cost) of QA robot detection tests, first year by >50%. Designed method to reduce tests by another 50-75%
- Worked with eng to support manufacturing issues

R&D QA SW / HW PRODUCT TEST MANAGER

Lawrenceville , NJ - February 2002 to 2006

Digital5 - a leading middleware software provider for Client / Servers utilizing wireless (802.11 B / G) and wired sharing of digital content securely among networked consumer electronics (CE) devices in the home. I was recruited by a former Lockheed Martin employee to join the QA department at Digital .Reported to the VP of engineering.

- Was promoted to Manager after a company re org. Hired, trained and mentored a 12 member global QA team
 - o Tasked with starting an offshore QA team for a new D5 facility in Hyderabad, India. Team was highly effective within 6 mths
- * Retrained 3 ex India Digital5 developers to perform QA tests and hired 4 additional resources for the new SQA test group.
- * India team performed White Box testing of the code while also helping the developers to create and run unit and module level tests to reduce the fix/retest cycle times by 2x
 - o Managed a 5 member team in NJ consisting of 4 QA and product test personnel, 1-change control/ build engineer
 - o Established a coordination/handoff process, for a highly effective 24 hr manual/automated test coverage
- Rate personnel for quarterly reviews, salary adjustment appraisals, implemented training and guidelines for advancement
- Analyze customer requirements, establish compliance metrics, total quality test objectives and test plans
- Participate in customer audits, due diligence and subcontractor reviews as required for companies such as Philips Electronics
- Present "QA and Product test" process philosophy to customers during company / project due process proceedings and audits
- Established and implemented guidelines to capture our current process by "documenting what we do, and doing what we document" to define / improve and stabilize our process which contributed to new business wins and prepared the company for pursuing CMM certification
- Create test reports, pass/fail fault category data and graphs, high level project reports and presented project data to management
- Specify and implement software test requirements utilizing IBM Rational Test Suite testing embedded Client FW and Server SW on Win OS
- Utilized Rational Robot to record manual tests, which was used as a basis for automated regression tests
- Improved performance of the product, minimizing missed bugs, while concurrently reducing test times significantly
- Administration of the WEB Based problem reporting tool "Elementool", held defect review meetings, generated daily/weekly reports

R&D SW / HW Test Engineering Manager

SRI International - Princeton, NJ - 1999 to 2002

Sarnoff Corporation, a research and development company, produces innovations in electronic, biomedical and information technology that generate successful new products and services for clients worldwide. Recommended by HR at Sensar to SRI HR

LEAD SYSTEM TEST ENGINEER

SRI International - 2000 to 2001

This assignment involved designing, implementing, and troubleshooting the electrical interface for a proof of concept effort to radically change the way pharmaceutical companies manufacture prescription tablets by depositing the drug directly to tablets, without a filler

- Lead Electrical / System Test Engineer tasked with designing the next gen electrical interface for the advanced prototype manufacturing electronic control cart and tablet platform, and its associated control rack.
- Next Gen interface was easier to maintain and required no dedicated support, unlike the original prototype system that required a full time Eng.
- Integrated and tested the SW control system, PLC, GUI core control and its database written in Visual C
- Led the team in preparation for FDA CFR Title 21 part 11, for validation and production trials of the prototype system

QA TEST MANAGER

SRI International - 1999 to 2000

Sarnoff required an experienced QA test eng to work with a large customer, "Funai" to prepare the product for market

- Promoted to Test Manager after 6 months and challenged with turning the test effort around for a project that involved testing embedded C++ software for the HDTV "DTV and Entertainment" group by implementing the following:
 - o The test effort was turned around by implementing rigorous test plans, test cases, and daily reporting process
 - o Brought in additional resources, defined the QA process & provided training for the new test team
 - o Implemented a process for using "GNATS" a problem reporting system, and trained personnel in its use
 - o Coordinated findings daily with SW developers to reduce problems and help produce a robust and stable product
- Worked closely with Sarnoff's Compliance Bit Stream department to test and recommend MPEG-2 transport test streams to clarify and fine tune the streams for general use
- Wrote VB test software to support testing such as an IR script to record and send IR commands to the STB to improve stability
- Applied lessons learned to identify key areas for improvement to reduce build release times
- Generated test plans, and test cases from customer and / or marketing requirements
- Analyze customer requirements, establish compliance metrics, total quality test objectives and test plans
- Submitted a Patent for a "Method for automated testing of decoded bit streams"

R&D Software / Hardware Test Eng

Sensar Inc - Moorestown, NJ - 1998 to 1999

Iridian Technologies leads the world in research, development of authentication technologies based on Iris recognition.

I was recruited by former Lockheed Martin employees to join the QA department in this startup company

- Specified and implemented test systems and scenarios to functionally test client server software consisting of VB, GUI's, C++, embedded software and Access / SQL Server 6.5 databases
- Analyzed requirements for new releases, specified equipment and test setups, wrote test plans and analyzed test results for pass fail criteria and met with the project eng, design team and programmers to review findings

- Worked with Phd's to implement Iris test strategies creating a cross sample of various Iris images / patterns for use in testing the product
- Worked with Phd's to simulate ways someone may attempt to create false positives or otherwise circumvent Iris recognition accuracy
- Performed system data integrity / stability tests, stress loading / response time scenarios and collected metrics
- Improved release times by providing the test plans and an identical test system to the developers in a coordinated effort that enabled them to debug their software in parallel with the test department, which reduced release cycle time by 50% with fewer bugs
- Tested SDK's, and conducted user usability tests to insure the system was easy to use by untrained operators
- Designed and built an electro - mechanical Iris recognition test fixture to stress test and define eye tracking and motion prediction algorithms perceived to be a problem. Testing found that the algorithms were 10x more efficient than realized, we were able to apply efforts elsewhere
- Worked with mechanical eng developing tests for Iris recognition during extreme operation in wind, and rain environments
- Supported local manufacturing and helped technicians as required to resolve calibration / manufacturing problems
- Held daily "live Eye Iris tests for manufacturing units" collected and analyzed data
- Worked closely with Eng to improve the Iris enrolment system, especially in the area of the GUI so the operator would be more effective in understanding the data to improve the quality of the Iris image
- Designed and wrote the software for an automated test fixture based on the MICROCHIP PIC Series of Micro-controllers for an IR power safety circuit that reduced test times from 5 min. to 30 sec. and eliminated \$25,000 worth of support equipment

Senior Staff Engineering Tech. / QA Eng

Lockheed Martin Astro Space Div - Newtown, PA - 1980 to 1998

Lockheed Martin a world renown-leading provider of interstellar probes, commercial and military satellites.

- I was among the top 10% of personnel accepted to relocate to the new center of excellence facility in Newtown PA
- Successfully trained a 25 member engineering team in documentation training, and successfully lead our department to become ISO-9000 compliant after the first audit, no major findings, and two minor findings
- Responsible for training technicians in QA / QC procedures. Evaluated junior technicians for raises and recommended promotions
- Lead for the 100 amp satellite "Power Switching Unit" specialized test equipment (STE) & challenged by the Engineering Director to design & build three test fixtures at 50% of the original projected cost, and perform QA qualification acceptance tests to interface to flight HW
 - o Eliminated duplicate testing, and utilized innovative technologies to reduce the cost by 58%
 - o Created the schematics, wire connection lists, qualification test plans etc & worked with QA to qualify the STE for use on flight HW
- Lead for the 100 / 200 amp "HV NiCad Battery Pack Unit" thermal chamber test farm
 - o Coordinated a team of 9 people to build / test 120 HW pieces, running custom test & monitoring SW & responsible for budget
 - o Handled all aspects of the design, drawings, schematics, test documentation & acceptance testing of the systems
 - o Responsible for interfacing with QA for documentation and final electrical acceptance tests in order to interface to flight HW
- Wrote engineering change notices, test procedures / plans, controlled and red lined Eng. documents used to build and test products

- Performed HW / SW tests using PC / Main Frame Automated Test Equipment (ATE) for flight satellite component assemblies
- Wrote and modified test scripts and used non-destructive methods to troubleshoot and isolate defective areas in flight HW

SKILLS

QA, Management, Lead, HW test, SW test, System, Test, Firmware, SDLC, Project Management, Process, CAPPA, corrective action, presentations, offshore, ISO, ISO-9000, SOP, Test Plans, Test Cases, Test Reports, Defect, Lab View, VB Script, Clearquest, Elementool, SCARAB, Gnats, HP QC, QC-10, QC-11, QC-11.5, QTP, QTP-10, QTP-11, QTP-11.5, test director, ALM, SDLC, Automation, Framework, Excel, Word, Visio, MS project

LINKS

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