



120612 BAA Project Examples

- Projects we have led or been involved in

Name	Description	Ref Date
Requirements Allocation Database (RAD)	Define user need and create a tool (Oracle-Apex D/B) - allocate requirements to common modular architectures - manage quality process scheduling and delivery	2012-2013
RAD - System Hierarchy Feature	Identify, clarify and manage systemic relationships between requirements and product architecture and it's controls and components	2013
RAD II	Application to enhance RAD to support common field service on/offboard tools, processes and schedules.	2013
PM Support System	Provide system and personnel for technical and project management of electronic controls development teams	2007-2013
Certification Literature Tool	Develop ARB Certification Literature Tool -Define requirements, coordinate user needs -Develop java based software and tie to multiple d/b -Provide user training and manual	2007-2009
Diagnostics Requirements Translation	Requirements translation - field service diagnostics (on/offboard) - service standards	2010-2013

OBD Requirements Translation	Translation of ARB 1971, 1968 and EPA SCR regulations and related subsidiary regulations (SIR, etc.)	2004, 2007, 2010
Euro Regulation Translation	Translation of Euro IV/V/VI (HD), Euro 4/5/6 (LD) and SCR regulations and related subsidiary regulations	2010-2012
Requirement Management Tool Setup and Operation	Setup schema and populate d/b - IBM DOORS, Siemens Teamcenter, other - OBD requirements (various releases) - Service requirements (diagnostics, SIR, etc.) - Port to future tool (PTC Integrity and other)	2008, 2010-2012
Regulatory Data Management	Create processes and tools for interfacing with ARB/EPA regulatory agencies	
NTF Process & Analysis	Create process for analyzing and managing warranty data for NTF (No Trouble Found) returns Analyze returns and create reports on NTF data for root cause and follow up	2010-2013
Requirements Data Structure	Evaluate requirements data structure and requirements management tool schema and porting to determine tool interoperability for PLM suite adoption	2010
Urea Supply Panel for Engine Test Cell	Create specification and source Urea supply and monitoring panel for high horsepower engine test cells	2012
Develop Team FMEA Process and Results	Define process for team FMEAs and perform on - Tractor/loader transmission systems - Transmission control system - Engine control systems	1999, 2003, 2010
Motor Control	Prototype motor control for demonstration of confidential industrial plant application	2010

Common Tool Architecture	Enterprise wide hardware and software platform development to achieve maximum reuse and global supportability -Target users (R&D, Engineering, Manufacturing, Test, Field Support organizations) -Define requirements and organize enterprise architecture -Develop multi-vendor solutions -Developed processes to define standard work for how to test products in manufacturing and design verification	2012-2013
Automated Opening and Performance Tester	Lab VIEW programming to add functionality to existing equipment to measure and record vertical and angular position of bottle cap, force and pressure	2013
Paver Coating Vehicle Wiring Analyses	Evaluate existing paver coating machine for wiring architecture loads and capacities. Supply improved manufacturing processes to support analysis. Recommend future product improvements on same.	2010
Perform PVE Test	Analyze regulations, write test procedures and perform test for OBD PVE on vehicles	2012
Datalink Test and AEB Update	Define and run tests on vehicle subsystem j1939 datalinks to determine interoperability. Update application engineering bulletins for OEM and suppliers.	2012
Vehicle EMI Analysis	Evaluate paving machine for EMI susceptibility and emissivity. Assess regulations and applicability. Define test plans for component level, machine in open field and machine in chamber.	2011
FP4 Redesign	Evaluated product design to address field issues. Recommended component change, circuit changes, and improved serviceability.	2012
Sensor Development	Evaluate and study sensors during the design process. Conducted field studies to verify expected performance. Performed Root Cause Analysis on failures. Report findings to suppliers and management.	2012-2013
Sensor Specification	Determine useful life data using fleet test. Extrapolate for regulatory requirements.	2012
Hardware Group	Worked with start-up department to develop electronic hardware focusing on circuit library designs, implementing new cad package and parts library, validation testing, and develop technical product specifications.	2012-2013
CCB	Setup tools and processes for Change Control Boards and operate for customer	2012-2013



Workflow	Facilitate definition of improved workflow and document AS IS. Design TO BE workflow.	2011-2012
Documentation Tool for EPA Emission Control Device	Create tool to document emission control modes for EPA per OEM guidelines. Develop process to support and provide training.	2011-2012
Design Sensor Module	Hardware design and development for a aftertreatment sensor module - low voltage impedance translator for high impedance sensor	2012
Design and Deliver DV Test	Create test stand for electronic control module	2012
Design and Deliver PV Test	Create test stand for electronic control module	2013
Design, Deliver and Support Elec Mfg Test	Create test stands for electronic control module production, support as necessary for training, trouble shooting and maintenance	2013