



OpTech Project Profiles

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Manufacturing Profiles

Quality Assurance

Manufacturing

Project Summary

OpTech executed a series of test cases against given modules, authored "Test Cases," and reported on module issues.

Technology Platform

Vehicle serial data communications: GMLAN, CAN, Class2 and Keyword 2000 protocols.

Tools Used

Vector CANalyser, PVCS document control tools, Lotus Notes, VLT (Vehicle link tester), Microsoft Office suite and various LAB equipment (Oscilloscope, DVOM).

OpTech's role in the project

Software Quality Assurance for Manufacturing Transfer Case Systems

Brio Developer

Manufacturing

Project Summary

OpTech worked with the client's Sales and User group to prepare multi-state sales and tax returns for TMS operations. Various files in different formats had to be collected from A/R, employee leasing, company car and port operations. Our team cleaned up the input files and exported them to a database. We created standard BRIO queries and reports to reconcile the tax collected into the GL, summarize and prepare the In-Source upload file, and create reports. We developed BRIO/Hyperion reports to be archived, and maintained the audit trail information to facilitate timely audit responses. In addition, we developed a dashboard to generate Pivots, Charts and On-Demand reports.

<i>Technology Platform</i>	<i>Windows XP, Oracle, Access, Hyperion (Brio)</i>
<i>Tools Used</i>	<i>Monarch Pro, Excel, MS Word</i>
<i>OpTech's role in the project</i>	<i>Business Analyst and Developer</i>

National Helpdesk

Manufacturing

Project Summary

OpTech provided Level 1 Helpdesk Analysts for a National Help Desk.

Technology Platform	<i>Windows XP, Windows 2000, and Mainframe</i>
Tools Used	<i>Novell Netware Administration, Telnet, Vasco Token Administration Tool, Lotus Notes, Internet Explorer, Rumba Mainframe Sessions (CICS and TSO), Sametime Connect, MS-Office Applications, Dashboard Anywhere</i>
OpTech's role in the project	<i>Communicate with internal customers regarding security, software, and hardware issues; record all information utilizing the Client's Trouble Ticket Tracking System; research and resolve customer concerns; route unresolved tickets to appropriate Level 2 group; provide Lotus Notes/INotes support; provide Dashboard Anywhere support; reset VPN Tokens, network and application passwords; maintain excellent customer relations</i>
Awards and Accolades	<i>Agent of Excellence Award</i>

Manufacturing Test Operations/Product Assurance

Manufacturing

Project Summary

OpTech is working on an Adaptive Front Lighting (AFL) module that controls the Swivel/Level motion of the head lamp with respect to the orientation of the steering wheel in a vehicle.

OpTech designed and implemented required Test Equipment Hardware and Tested Software for testing the AFL module.

Technology Platform

C ++, Windows XP, Microsoft Excel

Tools Used

National Instruments (NI) Data Acquisition software, NI TestStand, NI LabWindows/CVI, Chamber View

OpTech's role in the project

Write Test Software using NI LabWindows/CVI and C++ programming for testing the AFL module.

Configure the Test Sequence using NI TestStand.

Acquire, Analyze and Represent data from the AFL module.

Perform Design Validation (DV) Test to verify if the AFL module meets the Design Specifications provided by the customer (Manufacturing companies- Ford, GM, etc.)

Prepare and maintain technical and progress reports

Troubleshoot hardware and software failures

Skills Summary

Programming languages: VHDL, C, C++, VC++, Assembly (x85, x86, Motorola 68HC11), Visual Basic 6.0, HTML, SQL

Packages: MATLAB, Simulink, LabVIEW, Multisim, RSView, RSLogixPro, NI

Operating Systems: UNIX, Windows

Functional and Diagnostic Testing

Manufacturing

Project Summary

OpTech worked on the following projects;

- GMT H2 Transfer Case Control Module (TCCM) Functional and Diagnostic testing (GMLAN).
- GMT 345A Transfer Case Control Module (TCCM) Functional and Diagnostic testing (Class2).
- DCX CS Intelligent Torque Management Module (ITM) Functional and Diagnostic testing (Keyword/CAN)
- DCX JC Intelligent Torque Management Module (ITM) Functional and Diagnostic testing (Keyword/CAN)
- DCX JS Intelligent Torque Management Module (ITM) Functional and Diagnostic testing (Keyword/CAN)
- DCX LX Intelligent Torque Management Module (ITM) Functional and Diagnostic testing (Keyword/CAN)
- Porsche C4 / TOP Intelligent Torque Management Module (ITM) Functional and Diagnostic testing (Keyword/CAN)
- GM NG Theta Transfer Case Control Module (RDCM) Functional and Diagnostic testing (GMLAN).

Technology Platform

Electronic Vehicle Control Module Validation (Functional and Diagnostic)

Tools Used

CAT Tool, GM Tech 2, Vector CANalyzer, Vector CANoe, Vector CANape, Vehicle Spy, VLT, ETAS Inca, SDATT (Serial Data Automated Test Tool), J2534 Pass Thru Programming Devices, FORD EESE

OpTech's role in the project

Quality Assurance Engineering

Awards/Accolades

2007 PACE Award – Porsche 911 Turbo ITM3e(TM) all-wheel drive system

Torq Transfer Systems

Manufacturing

Project Summary

The client offers a complete line of transfer cases to address passenger car, crossover vehicle and SUV/light truck needs.

OpTech provided the following services:

- Created document, and executed test plans related to software validation of electronic module software.
- Developed comprehensive, customer specific, software validation test plans to meet all external and internal customer requirements; determined and assembled test specific setup requirements to perform the validation.
- Coordinated the build of software validation test equipment if necessary; conducted the validation testing per the validation test procedure and created summary reports.
- Logged potential software defects into a tracking database; reviewed data with team members to create a sign-off summary sheet after test completion.
- Participated in peer reviews and complied with CMMI level process requirements and worked with a cross functional team and investigated issues found during validation.
- Setup wire harness for the HIL testing for the auto tester and created input signals to automate test cases.

Technology Platform

GMW345 Alpha Transfer Case Control Module (Hummer H3), GM Class 2, GMLAN, CAN, Macro Max Testing Technology (Auto Tester)

Tools Used

VLT, Vehicle spy, DPS, RS232, VSI/C2-Vehicle serial Interface, MxDev Auto Tester, CANalyzer, Neovi, ValueCAN, PVCS Version Manager, PVCS Tracker, Lotus Notes, Scope, Digital Multimeter, Function Generator.

OpTech's role in the project

Quality Assurance

