

White Box and Test Automation for a Car Infotainment Software Provider



Client Overview

- Software provider for car infotainment equipment



Business Requirements

- The platform is a car multi media controller software which integrates with hardware utilities (smart phone, media player, USB/ connectivity)
- Validate the data flow, interruptions or missing connections of hardware components
- Perform Data Validations and negative scenario validations
- Achieve maximum test coverage with diagnostic testing
- Automate the scripts to validate the functional data flows



Our Solutions

- Performed white box tests to validate system software components, assessed the code for bottlenecks
- Created embedded test cases for diagnosing the hardware and software components
- Created sub routines within primary functional logic to execute hardware interrupts
- Verified system for data flows – correct input and outputs
- Used simulators for various hardware components like display (GLCDs), Keypads, Microphones and some sensors, reducing in cost per testing cycle
- Created automation scripts to derive repeated behaviour of the system to meet the functional and non functional requirements
- Developed and executed test scripts to verify compatibility across device platforms (android based tablet displays)



Technology

- Android 4.4, 5 & 6

Tools

- Micro vision IDE, Keil Simulator, C



Business Impact

- Facilitated adequate code coverage with Code Assessments
- Created reports that showed trends in test results over time
- 20% effort reduction in test execution through automation



INDIA
Chennai
+91 44 6606 9100
Bengaluru
+91 80 4645 7777
Mumbai
+91 022 6215 4028

USA
Cupertino | Princeton
Toll-free: 1 888 207 5969
SINGAPORE
+65 9630 7959

UK
London
+44 773 653 9098

General Inquiries: info@indiumsoftware.com | Sales Inquiries: sales@indiumsoftware.com

www.indiumsoftware.com | ©Indium Software