CAT Demystified & Optimized with HDS

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Abstract

A software quality Engineer acts like the end gate wearing multiple hats throughout the test cycle to ensure a customer delight product. This paper presents a complex activity called 'Client Applications Testing' [CAT]; a systematic procedure to qualify multiple software applications at Tektronix and how the software quality group optimized it using 'High Speed Serial DUT Simulator' [HDS], a proprietary utility to augment Test Automation.

At Tektronix a major release of core platform software or firmware includes qualification of the software plug-ins and applications built over platform or firmware. This is CAT and demystified with various examples in the paper.
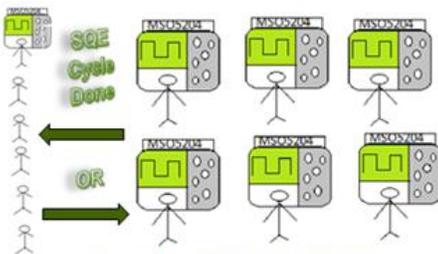
Figure A - CAT Demystified

The snap shot (as in Figure A) shows various resources being allocated during a CAT phase and one of the challenge organization faces during such major release is to qualify the software plug-ins and applications built over the platform or firmware with effective utilization of resources to gain maximum productivity; but this also effects the current developments.

At Tektronix India HDS has enabled to achieve significant productivity; HDS is a DUT (Device Under Test) simulation utility for various High Speed Serial Standards and automated test suites. How making a one point contact to do the CAT with help of HDS has optimized CAT is given a focus in the paper. The snap shot (as in Figure B) represents the glimpse of optimized CAT.

This paper also presents how the loss in productivity is reversed and helped the organization grow & excel in delivering high quality products with faster time-to-market. It also brings out what made the team to surpass the challenges encountered with ease and thus defined a new level in the organization's software development process with their innovative efforts
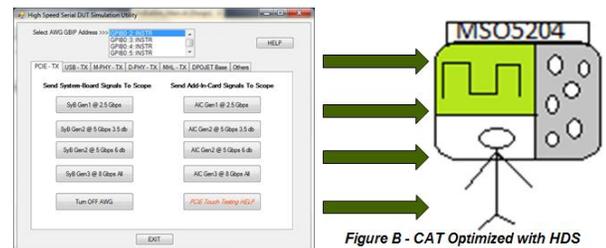

Figure B - CAT Optimized with HDS

Biography

ChandraSekhar Kappagantu has a Master's degree in 'VLSI & Embedded Systems Design' from 'International Institute of Information Technology – Pune, INDIA He is with 'Tektronix, Bangalore – India' as a 'Software Quality Leader'. He is with Tektronix for close to 5 years now and has an overall expertise of 8 and half years in Software Quality Engineering. Previously He worked with 'Mindtree Limited – India' as a Module Lead and was involved in Automation & Protocol Testing of Bluetooth Protocol. At Tektronix he deals with Application Testing to ensure the quality of 'TekExpress Applications'; the TekExpress solution helps in verification, characterization of various high speed serial standards like USB3.0, PCIe as per compliance using Tektronix instruments. This is the second time he planned to present a paper @ PNSQC; the previous was in 2011 on the topic 'Agile Testing – 'A tale of two Stories'