3. Juli 2014 - ESTREL Berlin

TUTORIAL DAY

Date & Time:

3. Juli 2014 9:00 - 17:30 Uhr

Title:

Amplify Your Test Effectiveness with High-Volume Automation Techniques

Your Trainer:

Harry Robinson, Microsoft

Abstract:

Would you be able to effectively test a user interface, an API, or a web service whose features are constantly evolving? Manual testing would miss many bugs. Automated test suites would leave large parts of the application untouched. And relying on your customers to find your bugs could be very risky!

Fortunately, new high-volume automation techniques leverage cheap computing power to amplify your own test creativity and effectiveness. Even better, these techniques are conceptually straightforward and can be implemented in simple code without expensive tools!

The techniques include:

- * Test models based on finite state systems, grammars, and set theory
- * Test sequence generation using random walks, minimal cost tours, and Markov chains
- * Test oracles from simple heuristics, metamorphic testing, pre-oracling, and data analysis
- * Test data using fuzzing, combinatorics, and anti-random selection

This example-driven seminar shows how you can apply and combine these techniques in your own testing.

Trainer's Biographie:

Harry Robinson is a Principal Software Design Engineer in Test (SDET) for Microsoft's Internet of Things team. He has over twenty years of software development and testing experience at AT&T Bell Labs, Hewlett-Packard, Microsoft, and Google.

He currently works with Internet of Things teams on developing effective test strategies across the product.

While at Bell Labs, Harry created a model-based test generation system that won the 1995 AT&T Award for Outstanding Achievement in the Area of Quality. At Microsoft, he pioneered the model-based test generation technology, which won the Microsoft Best Practice Award. Harry holds two patents for software test automation methods, maintains the site www.model-based-testing.org and speaks and writes frequently on software testing and automation issues.

