



4<sup>th</sup> Annual Selenium Conference



# Program Guide

<http://seleniumconf.org>



"Hosting the official Selenium Conference in India, is indeed a very important step towards providing access to the latest, greatest advancements in the software testing space to the testing community in India.

The program committee has worked really hard to put together a top-notch program. I hope you enjoy the conference and walk away with fresh ideas and perspectives."

Naresh Jain, Organizer, Selenium Conf 2014

|                              |    |
|------------------------------|----|
| SCHEDULE .....               | 4  |
| WORKSHOPS.....               | 9  |
| SELENIUM INFRASTRUCTURE..... | 13 |
| SELENIUM INTERNALS.....      | 14 |
| SELENIUM FOR MOBILE.....     | 15 |
| SELENIUM BEST PRACTICES..... | 16 |
| SPEAKERS .....               | 22 |



**153 Million**

Tests Run to Date

**18 Million**

Monthly Tests

**183,000**

Registered Users

**375**

Device/OS/Browser  
Platforms Support

**1 leader in test  
automation**



Sauce Labs is proud to be the original supporter of the Selenium project and sponsor of SeConf14.

*Please join us Friday night at the dinner reception to raise a glass to this remarkable community.*

 #SauceAtSeConf14 @saucelabs

[saucelabs.com](http://saucelabs.com)

 sauce LABS



# BrowserStack

We recently added real iOS and Android devices  
for running Selenium tests on the cloud.

[browserstack.com/automate](http://browserstack.com/automate)

Join the BrowserStack Team, and help us make  
Selenium better. We are based out of India.

[browserstack.com/careers](http://browserstack.com/careers)

**08:30 - 09:00**

Registration

**09:00 - 10:00**Selenium: State of the Union  
Keynote**Simon Stewart, Facebook**

Grand Ball Room

**10:00 - 10:15****Welcome Address****Naresh Jain, Agile FAQs**

Grand Ball Room

**10:15 - 10:30**

Coffee/Tea Break

**Grand Ball Room 1****10:30 - 11:30**

Embrace and Extend: How the Selenium Project  
Convinced the World's Largest Closed-Source Company  
to Participate  
Beginner Talk

**Jim Evans, SalesForce.com****11:45 - 12:30**

Migrating the herd - How Salesforce is migrating 35,000  
Selenium RC tests  
Beginner Case Study

**David Tolley, SalesForce.com****Grand Ball Room 2****10:30 - 11:30**

Design Patterns beyond the Page Object: An  
investigation into the design patterns used while  
building page objects  
Intermediate Demo

**Derrick, Purdue University****11:45 - 12:30**

Perils of Page-Object Pattern  
Advanced Experience Report  
**Anand Bagmar, ThoughtWorks**

**Esquire****10:30 - 12:15**

Designing selenium webdriver scripts in an effective  
manner to reduce script rework  
Intermediate Tutorial

**Yagnesh Shah, Moolya Software Testing**

+

**Kiwix Bug Bash**  
<http://bugbash.in/kiwix-at-seconf>

**12:30 - 13:30**

Lunch

## Grand Ball Room 1

## Grand Ball Room 2

## Esquire

13:30 - 14:15

13:30 - 14:15

Scaling and managing Selenium Grid  
Intermediate Talk

**Dima Kovalenko, Groupon**

14:30 - 15:00

Allure framework - Crystal Clear Reports for your  
Selenium Tests  
Beginner Talk

**Artem Koshelev, Yandex**

Case Study - QTP/UFT to Selenium Migration - 80%  
reduced execution time  
Beginner Case Study

**Tarun Lalwani, Tarun Automation Research & Labs**

14:30 - 15:00

Clojure for functional testing of Mobile and Web apps  
Intermediate Demo

**Mayur Jadhav, Helpshift**

15:00 - 15:15

Coffee/Tea Break

15:15 - 16:15

15:15 - 16:15

Running Selenium tests on a cloud of real mobile  
devices  
Intermediate Demo

**Dhimil Gosalia, BrowserStack**

Testing "Injection" Attacks with Selenium  
Intermediate Demo

**Prasanna Kanagasabai, ThoughtWorks**

15:15 - 17:00

Lightning Talks

+

Kiwix Bug Bash

<http://bugbash.in/kiwix-at-seconf>

16:30 - 17:00

16:30 - 17:00

How we trained our dragon built on enterprise practices  
to adopt and fail fast with OSS  
Intermediate Talk

**Sushant Choudhary, ThoughtWorks**

There is more treasure in Selenium nodes than in all the  
pirate's loot on Treasure Island  
Intermediate Talk

**Syed Khaja Habeebuddin, Sayeureqa**

17:15 - 18:45

Q & A with the Selenium Committee

19:00 - 22:00

Sauce Labs Reception (with Dinner)

13:30 - 15:00

Open Space

+

Kiwix Bug Bash

<http://bugbash.in/kiwix-at-seconf>

09:00 - 10:00

## Fish Bowl

[Selenium Committee](#)

Grand Ball Room

10:00 - 10:15

## Important Announcements

[Naresh Jain, Agile FAQs](#)

Grand Ball Room

10:15 - 10:30

Coffee/Tea Break

Grand Ball Room 1

10:30 - 11:30

**Page Objects Done Right**  
Intermediate Talk

[Oren Rubin, Testim](#)

Grand Ball Room 2

10:30 - 11:30

**Better Selenium Tests with Geb**  
Beginner Tutorial

[Naresha K, Enteleki Solutions](#)

Esquire

10:30 - 12:15

**WebDriver and Cucumber in the JavaScript Land!**  
Intermediate Demo

[Sreedevi Vedula, ThoughtWorks](#)  
[Ramalingam S, ThoughtWorks](#)

+

**Kiwix Bug Bash**  
<http://bugbash.in/kiwix-at-seconf>

11:45 - 12:30

11:45 - 12:30

**Selenium DeTox for Achieving the Right Testing Pyramid**  
Intermediate Case Study

[Naresh Jain, Agile FAQs](#)

**Selenium and Joomla Open Source**  
Beginner Experience Report

[Puneet Kala, Oracle](#)

12:30 - 13:30

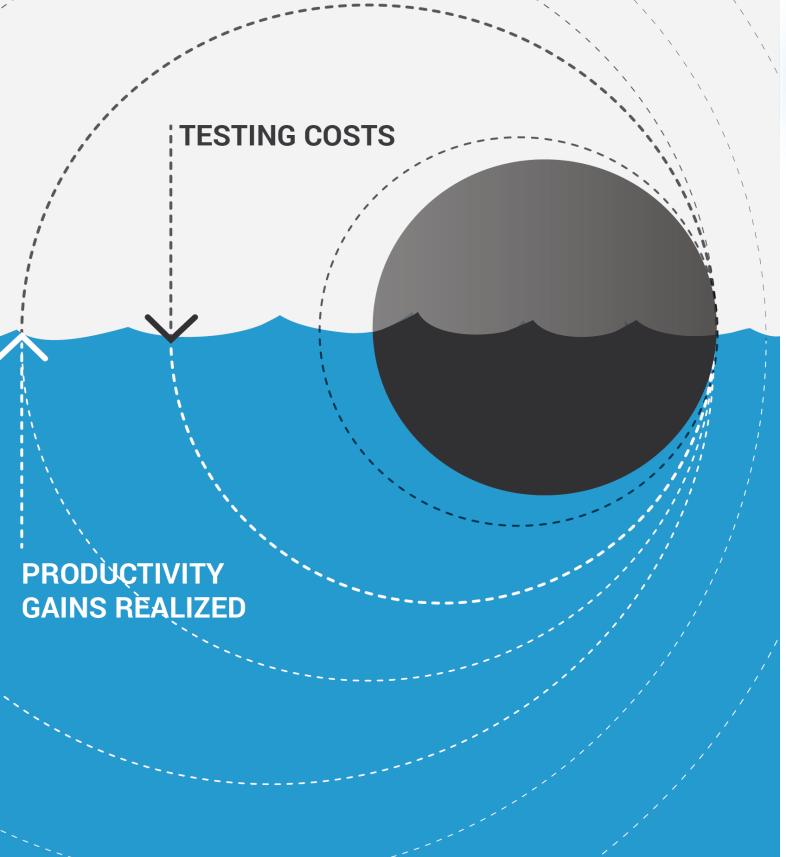
Lunch

| Grand Ball Room 1   | Grand Ball Room 2  | Esquire                              |
|---|--|--------------------------------------|
| 13:30 - 14:15<br><br>Selenium in the palm of your hand: Appium and automated mobile testing<br>Intermediate Talk<br><br><a href="#">Isaac Murchie, Sauce Labs</a>         | 13:30 - 14:15<br><br>Testing the Web Platform with WebDriver<br>Intermediate Talk<br><br><a href="#">Andreas Tolfsen, Mozilla</a>  |                                      |
| 14:30 - 15:00<br><br>Increase Selenium tests stability via JavaScript<br>Intermediate Talk<br><br><a href="#">Igor Khrol, Wargaming.net</a>                               | 14:30 - 15:00<br><br>How To Find Information On Your Own<br>Intermediate Talk<br><br><a href="#">Dave Haeffner, The Selenium Guidebook</a>   | 13:30 - 15:00<br><br>Open Space      |
|   | 15:00 - 15:15<br><br>Coffee/Tea Break  |                                      |
| 15:15 - 15:45<br><br>Hacker-proof your app using Functional Tests<br>Intermediate Talk<br><br><a href="#">Ankita Gupta, LinkedIn</a><br><a href="#">Anamika, LinkedIn</a> | 15:15 - 15:45<br><br>There are three things that matter in cross-browser test automation- locator, locator, locator - But how do you find the right one?<br>Intermediate Talk<br><br><a href="#">Prasada Raju, Sayeureqa</a> | 15:15 - 15:45<br><br>Lightning Talks |
|   | 16:00 - 17:00<br><br>Bringing Bug Free Learning to the World!<br>Keynote<br><br><a href="#">Julian Harty, CommerceTest Limited</a>   |                                      |
|   | Grand Ball Room  |                                      |
|   | 17:00 - 17:30<br><br>Closing Talk  |                                      |
|   | Grand Ball Room  |                                      |



“Any team immersed in eureQa will displace testing costs equal to the productivity gains realized.”

Archimedes Principle for Testing



TESTING COSTS

PRODUCTIVITY  
GAINS REALIZED

If you love selenium, but don't like the time & resources you are forced to spend to develop, maintain and run tests or report on tests, it is time to say eureQa!

Learn more at the eureQa stall or visit us at : [sayeureqa.com/selenium](http://sayeureqa.com/selenium)



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**CONFENGINE**

Thursday, Sep 4, 10:00 AM - 6:00 PM (One Day)

[Dave Haeffner](#)

## Getting Started with Selenium

How to Use Selenium Successfully?

Want to learn how to use Selenium from the ground up?

In this session Dave will show you how to start from nothing and build out a well factored, maintainable, resilient, and parallelized set of tests that will run locally, on a Continuous Integration server, and in the cloud.

These tests will not only work well, but across all of the browsers you care about, while exercising relevant functionality that matters to the business.

Workshop Takeaways:

- Decompose an existing web application to identify what to test
- Identify which browsers to test with
- Pick the best language for you and your team
- Setup Selenium to work with each browser you care about
- Write maintainable and reusable Selenium tests that will be cross-browser compatible and performant
- Build an integrated feedback loop to automate test runs and find issues fast
- Setup your own infrastructure or connect to a cloud provider
- Dramatically improve test times with parallelization
- Navigate the Selenium landscape to find information on your own

[Click for more details about the workshop...](#)

## Speaker

**Dave Haeffner** is the writer of Elemental Selenium -- a free, once weekly Selenium tip newsletter that's read by thousands of testing professionals. He's also the creator and maintainer of ChemistryKit (an open-source Selenium framework), and author of The Selenium Guidebook. He's helped numerous companies successfully implement automated acceptance testing; including The Motley Fool, ManTech International, Sittercity, and Animoto. He's also a founder/co-organizer of the Selenium Hangout and has spoken at numerous conferences and meet-ups about automated acceptance testing.

Thursday, Sep 4, 10:00 AM - 6:00 PM (One Day)

[Simon Stewart](#)

## Fix a Bug, Become a Committer

Have you ever wondered how Selenium works under the covers? Do you get frustrated with locators not locating, pages not loading, or browsers behaving inconsistently from one run to the next? Selenium is an attempt to unify thousands of disparate elements across a wide spectrum of challenges into a single, common interface that works seamlessly with all the major browsers - and yet only a handful of volunteers work to maintain this gigantic effort. If you would like to enhance your own Selenium experience while contributing back to the software that has defined so many of our careers, come to this workshop. In it we'll dissect the different elements of Selenium, dive into its internals, learn how it was built and how to make changes to it, and even write a unit test you can contribute on the same day!

Join Simon Stewart, the creator of the WebDriver interface, as we:

- Survey the different parts of the system
- Learn where the language bindings and browser internals originate
- See how the source code is structured
- Learn how to build Selenium on your own desktop
- Write a unit test and create a pull request to contribute it back
- Understand how releases get cut
- Search out the bug database for an issue you can fix during the workshop
- Ask questions in the presence of several of the core committers
- Learn what it takes to become one of the core committers. This free, Open Source project always needs more help

[Click for more details about the workshop...](#)

### Speaker

**Simon Stewart** is the creator of WebDriver, the open source web application testing tool, as well as a core Selenium 2 developer. WebDriver remains a hot topic at the Google Test Automation Conference.

A frequent speaker at conferences, as well as GTAC, Simon has presented at the Facebook Mobile Developer conference, Selenium conference, Droidcon Berlin and many others.

Simon is Facebook's W3C AC representative, and a former software engineer in test (SET) at Google. He describes himself as "undeniably hairy", and holds a BSc in computer science from Nottingham University..

Thursday, Sep 4, 10:00 AM - 6:00 PM (One Day)

Dima Kovalenko

## Get your Grid up and Running

Selenium Grid can be a bit daunting to get up and running. Starting it is quite easy, but using it effectively requires pulling in third party tools. In this workshop we'll cover how you would realistically run your grid, using best practices culled from several large grid installations. We'll set up the grid, configure it for centralized logging, set up BrowserMob Proxy, add monitoring for all services, and handle common failure scenarios.

### Agenda

#### 1. Overview:

- Describe what the grid is intended to solve, then get into how it solves it
- Going deeper into the funnel, how is it getting its instructions?
- How does it pass the instructions to the nodes?
- What do the nodes do with these instructions, and how is it different by browser?
- What kinds of logging do the nodes/hubs do that can help in debugging and investigating problems?

#### 2. Set-up:

- We'll start with the hub and node servers running on the same box, for simplicity.
- Different options and flags that can be used when starting the hub/node processes
- How to simplify the start-up/shut down of hubs/nodes, what to put into a bash script, etc to help

#### 3. Running:

- What the heck is a Desired Capability, and how do I communicate that properly?
- The Dashboard
- What to look for when you have jobs "pending" that can't seem to find a home?
- Regular care and maintenance of a grid ecosystem

#### 4. Logging:

- Where are the logs stored? What do they contain
- Customizing log messages

[Click for more details about the workshop...](#)

### Speaker

Dmitriy "Dima" Kovalenko started his career in software quality assurance in 2003, at then small company called Rosetta Stone. He helped to implement the Agile practices at the company, most of the time creating and developing practices, as very few Agile QA practices have been defined at the time. During his tenure at Rosetta Stone, Dima implemented many testing procedures, bug tracking guidelines and product release procedures, some of which are still used today. He also transformed the testing lab from substandard workplace, to a modern lab consisting of wide verity of computers and operating systems, which reduced the testing costs while increasing productivity many times over.

In 2008 Dima has started a brand new QA department at a small marketing company called Centro. He setup a fully Agile QA department, which is closely integrated into the development cycle and helps to develop high quality software.

Thursday, Sep 4, 10:00 AM - 6:00 PM (One Day)

[Julian Harty](#)

## Opensource Mobile Testing

There are millions of mobile apps running on billions of mobile devices. Meanwhile enterprise apps are running on tiny computers such as the Raspberry Pi. How do we test these apps, and which test automation tools suit? During this workshop you will learn about many of the key challenges of testing mobile apps, including which automated tests, test automation frameworks, etc. are relevant. We will compare various test automation techniques including image-based verification and techniques that interact with the underlying elements of the UI.

We will practice with opensource test automation tools during the workshop to test apps used by users worldwide. Similarly we will focus on free and opensource test automation frameworks.

### Agenda

- What are the main challenges to testing mobile apps
- Things worth knowing about mobile ecosystems and mobile testing
- Testing mobile apps in an Agile environment
- Hands-on interactive testing of mobile apps
- Automation in action
- Next steps in gaining confidence and competence

[Click for more details about the workshop...](#)

### Speaker

**Julian Harty** has been working in technology since 1980 and over the years have held an eclectic collection of roles and responsibilities, including: The first software test engineer at Google outside the USA, where he worked for 4 years as a Senior Test Engineer on areas such as mobile testing, AdSense, and Chrome OS. He has been actively involved in testing and test automation for mobile apps since 2006. He develops Android apps, works on testing and test automation for web and mobile apps and shares much of his material freely. He has worked for Google for 4 years and eBay for 18 months in global roles. Over the years he has also participated in hundred's of workshops and conferences globally. He is based in the South East of England. You can find him at conferences, events, and peer workshops globally.

### Talk

Sep 05 01:30 PM - 02:15 PM (45 mins) in Grand Ball Room 1

#### **Scaling and managing Selenium Grid**

Intermediate level

Dima Kovalenko, Groupon

Managing the Selenium Grid can be very difficult, especially as you scale it up. This session will demonstrate how we were able to scale the Selenium Grid with multiple operating systems, in multiple data centers across many continents. With the use of Selenium Grid Extras, and open source project, we were able to get much better control of individual nodes, manage WebDriver versions and much more.

Sep 06 01:30 PM - 02:15 PM (45 mins) in Grand Ball Room 2

#### **Testing the Web Platform with WebDriver**

Intermediate level

Andreas Tolfsen, Mozilla

As the WWW morphed from a system of interlinked hypertext documents to an advanced application delivery platform, the requirements on the underlining technologies and the browsers implementing them changed dramatically. To ensure correctness in behaviour and that application code works across multiple browsers, standards come equipped with test suites. But interoperability can only be guaranteed by a more thorough testing effort. The W3C has launched a new project called Test the Web Forward to bridge this gap, and WebDriver sits at its centrepiece.

The talk will focus on the infrastructure that is being created to run these tests, and exemplify how WebDriver library can be utilized in a complex and untraditional test running framework. It will also give a glance into the ongoing W3C WebDriver specification work, and where we are headed.

### Experience Report

Sep 06 11:45 AM - 12:30 PM (45 mins) in Grand Ball Room 2

#### **Selenium and Joomla Open Source**

Beginner level

Puneet Kala, Oracle

In an era of highly interactive and responsive software processes where many organizations are using some form of methodology, test automation is frequently becoming a requirement for software projects.

Many organizations are using Selenium-IDE and RC for testing softwares, In this talk we are going to talk about How we can use Selenium-webdriver to setup a Testing Suite for an application.

We at Joomla!, have our testing suite built in Selenium-Webdriver along with PHPUnit and are using a Page-Object pattern to increase the code maintainability. We are going to talk about how one can setup a test suite and built our own reporting tool with Graphical representation of test results using the logs.

## Demonstration

Sep 06 10:30 AM - 12:00 PM (90 mins) in Esquire

## WebDriver and Cucumber in the JavaScript Land!

Intermediate level

Sreedevi Vedula & Ramalingam S, ThoughtWorks

WebDriverJS and Cucumber.js are new entrants in the WebDriver eco-system and are gaining popularity by the day! These JavaScript ports for WebDriver and Cucumber enable us to test the JavaScript UI apps built using frameworks like Angular JS, Ember.JS with great ease.

The UI tests can be written in JavaScript, thereby using the same technical stack of the application and the tests seamlessly integrate with the code for continuous integration and continuous delivery.

The session is a demonstration of test framework using Cucumber.js and WebDriverJS for testing an open-source Angular JS application.

Sep 06 10:30 AM - 11:30 AM (60 mins) in Grand Ball Room 2

## Better Selenium Tests with Geb

Beginner level Tutorial

Naresha K, Enteleki Solutions

Selenium tests can quickly grow in size and could become difficult to maintain, unless adhered to DRY principles to the extreme. Geb is built on top of Selenium WebDriver, which brings in the expressive power of groovy to WebDriver API. Geb can be used for all browser automation tasks that can be achieved with WebDriver. This talk will show how Geb can help us to write concise tests that are highly readable.

Prior knowledge of Groovy is NOT essential to get started with Geb, however would be helpful in advanced use cases.

## Talk

Sep 05 10:30 AM - 11:30 AM (60 mins) in Grand Ball Room 1

## Embrace and Extend: How the Selenium Project Convinced the World's Largest Closed-Source Company to Participate

Beginner level

Jim Evans, Selenium Project

Microsoft. Just the name of the company alone can send some open-source software activists into fits of apoplexy. From the days when executives of the company compared open-source software to "a virus", the company has been seen as incredibly hostile to open-source software. It is surprising how much has changed over the years.

This is the story of how the Selenium project has managed its relationship with the software company, from the initial, tentative, often contentious and borderline hostile reaching out, to today's open engagement. The story is told through the prism of the Internet Explorer Driver project, with slight digressions to the .NET bindings and other Microsoft technology stacks. The journey is funny, sometimes frustrating, but always entertaining, and there may be a surprise announcement or two.

## Demonstration

Sep 05 03:15 PM - 04:15 PM (60 mins) in Grand Ball Room 1

## Running Selenium tests on a cloud of real mobile devices

Intermediate level

Dhimil Gosalia, BrowserStack

Many challenging aspects need to be considered when running your Selenium test suite on real mobile browsers: choosing the right Selenium library, emulators vs. real devices, 24x7 local device infrastructure availability, unsupported features, pop-ups, etc. Do the benefits outweigh the effort?

We first talk about how to test effectively on mobile browsers using Selenium. The problems we have faced with mobile emulators, and why we are scrapping them in favour of a real mobile devices cloud of Selenium nodes. Then this is followed by a demo on how to execute your tests on iOS and Android devices. Learn how to set up a real mobile devices cloud from scratch; when we will also discuss how to run health checks for your cloud, and troubleshoot properly.

Our expertise comes from building a real iOS and Android device cloud for our customers, looking to get accurate results from testing - something to be had only from actual devices and not just emulators.

## Talk

Sep 06 01:30 PM - 02:15 PM (45 mins) in Grand Ball Room 1

## Selenium in the palm of your hand: Appium and automated mobile testing

Intermediate level

Isaac Murchie, Sauce Labs

The mobile world is growing, and it has never been easier to test applications—native, web, or hybrid—using Appium, a free, open-source implementation of the Selenium protocol for automating mobile devices. I will show how Appium, which is in active development and recently shipped version 1.0, allows developers and testers to harness all the power of the native testing frameworks provided by the mobile device manufacturers, but within the context familiar to Selenium users.

Further, Appium provides a very good opportunity for looking at the challenges for a technology designed to automate web browsers as it moves into a new realm. I will discuss how functionality was repurposed for this new context, as well as the ways in which the protocol was extended and made more flexible in light of the expanded use case.

As a case study in extended functionality, I will discuss the gesture API, which allows a standardized way to automate the sorts of advanced multi-finger gestures used on modern mobile devices.

## Case Study

Sep 06 11:45 AM - 12:30 PM (45 mins) in Grand Ball Room 1

## Selenium DeTox for Achieving the Right Testing Pyramid

Intermediate level

Naresh Jain, AgileFAQs

Our project was a classic example of Selenium gone wild! As our team embraced the test automation journey, we went crazy and implemented tons of Selenium tests, one for every permutation possible. Soon we realized our feedback cycles were delayed. Our builds were taking hours instead of minutes. And we had a set of complex, fragile tests, which resulted in a lot of false-negative scenarios and finger pointing.

At this point, our team had realized that this is not the path forward. We decided to seriously look at our Selenium tests. We pretty much moved 80% of our Se tests to lower-layers (non-GUI based) tests. And now we have the right testing pyramid on our project.

Join us, as we explain our journey (strategy, techniques, tools, mindset-change and approaches we took) through this transition.

## Case Study

Sep 05 11:45 AM - 12:30 PM (45 mins) in Grand Ball Room 1

## Migrating the herd - How Salesforce is migrating 35,000 Selenium RC tests

Beginner level

David Tolley, Salesforce

The Quality Engineering team at Salesforce fell into the same pit that most other technology companies have: Selenium tests were so easy to create that we created thousands upon thousands of them. The difference is our Selenium RC pit is over 35,000 tests deep. This talk is about how we are indentifying what each of our tests are doing, how we can transition tests to a different and faster layer and how we are migrating from Selenium RC to WebDriver across a massive scale.

Sep 05 01:30 PM - 02:15 PM (45 mins) in Grand Ball Room 2

## QTP/UFT to Selenium Migration - 80% reduced execution time

Beginner level

Tarun Lalwani, Tarun Automation Research & Labs

QTP/UFT has been one of the leading Test Automation tool in the market. QTP supports a wide variety of technologies and with the recent article from Telerik - "5 hidden costs of Selenium". Is it really worth migrating to Selenium? If you think No, then think again. We recently migrated a client from QTP to Selenium, and the results was a 80% savings in execution time using one single machine. This case study will share the challenges we faced initially and how we managed a framework with high re-usability and execution.

## Demonstration

Sep 05 03:15 PM - 04:15 PM (60 mins) in Grand Ball Room 1

**Clojure for functional testing of Mobile and Web apps**

Intermediate level

Mayur, Helpshift

Writing tests for modern websites is quite tricky. And systems that have device-browser interaction, challenge test engineers even more.

In this talk I'll show how we use Clojure to solve problems of functional and integration testing for mobile and web applications, at Helpshift.

We use wrappers and libraries written in Clojure to leverage well known tools such as Calabash for Android, Appium for iOS, and Selenium WebDriver for the web.

Clojure is a powerful modern Lisp. In this talk, I hope to show how we benefit from many of its features, including fast, interactive REPL oriented development, rich set of data structures, and the power of macros.

## Demonstration

Sep 05 10:30 AM - 11:30 AM (60 mins) in Grand Ball Room 2

**Design Patterns beyond the Page Object: An investigation into the design patterns used while building page objects**

Intermediate level

Derrick, Purdue University

In an age where the Page Object Pattern and Page Factory Pattern dominate web testing conversations, there is still a need to understand and apply the design patterns of yesteryear. Ideas from the Facade Pattern, Factory Method Pattern, the Iterator Pattern, the Object Pool Pattern, and the Decorator Pattern all find their way into the Page Objects we build to represent the increasingly complex widgets found on today's websites.

In this presentation, we take it back to the old school, looking at novel ways to apply classic design patterns, like those developed by the Gang of Four and Code Complete, to new screen scraping problems. We will investigate three common scenarios where using the typical approach to page objects can be inefficient or difficult, including filling in a web form, iterating over data in a list, and traversing iframes to communicate with widgets. We will explore how to improve upon the naive approach to building these page objects through the use of classic design patterns. Finally, we will formalize our findings into new patterns which can be applied to more general scenarios.

Code examples will be presented in Python and based off of my work building automation tools for hubzero.org, [more...](#)

## Demonstration

Sep 05 03:15 PM - 04:15 PM (60 mins) in Grand Ball Room 2

## Testing "Injection" Attacks with Selenium

Intermediate level

Prasanna Kanagasabai & Ketan Soni, Thoughtworks

Business applications are growing at a break neck speed to cater to ever increasing business need. The dream of ever-connected systems and information at fingertips is quickly becoming a fact. This dream has brought out an evolution of online-real time applications with multiple requirements and functionalities. The down side to this security is being forced to take a back seat. Add to this the sheer quantum of code to cover is overwhelming to a manual security tester.

One of the most common attacks against web applications is injection attack; injection flaw allows a malicious user to send malicious input to an application. The consequences of having injection flaw in your application can range from a user be able to steal all the data from your database to extreme situation like he having a command access to your infrastructure. We in this session want to show the power of automation using selenium. We will demonstrate how we are writing some interesting scripts to automate the testing of injection attacks in web applications. The outcome of automation is that we have been able get a fair code coverage and gives the time to security tester to concentrate on more tests that need [more...](#)

## Experience Report

Sep 05 11:45 AM - 12:30 PM (45 mins) in Grand Ball Room 2

## Perils of Page-Object Pattern

Advanced level

Anand Bagmar, ThoughtWorks

Page-Object pattern is very commonly used when implementing Automation frameworks. However, as the scale of the framework grows, there is a limitation on how much reusability really happens. It inherently becomes very difficult to separate the test intent from the business domain.

I want to talk about this problem, and the solution I have been using - Business Layer - Page - Object pattern, which has helped me keep my code DRY.

Talk

Sep 05 02:30 PM - 03:00 PM (30 mins) in Grand Ball Room 1

## Allure framework - crystal clear reports for your selenium tests [in any language]

Beginner level

Artem, Yandex

It's pretty cool to have selenium test results clear to everyone on the team. There are lots of frameworks in every language that aim to simplify test writing. But only few can provide sharp presentation of test execution output. Yandex team is working on Allure (<https://github.com/allure-framework/allure-core/wiki>) - an open-source framework designed to create crystal clear reports. Because of module structure it integrates easily with almost any testing tool, no matter which language you use. In my talk i will describe the basic principles and show how to integrate Allure reporting in your existing projects.

Sep 06 02:30 PM - 03:00 PM (30 mins) in Grand Ball Room 1

## Increase Selenium tests stability via JavaScript

Intermediate level

Igor Khrol, Wargaming.net

UI-tests are not really stable. Some sync point might be missed and tests will be red from time to time without any obvious reason. Or accidentally some focus might go away and button will not be clicked. These and other cases make automated testing results unpredictable and these results are not trusted.

In my speech I want to share the experience how to reach reliable and reproducible results with Selenium tests. In order to reach it we should sacrifice to 100% end user emulation. The presentation is based on the real project where this idea was successful. Also more common recommendations will be given publicity.

Talk

Sep 06 03:15 PM - 03:45 PM (30 mins) in Grand Ball Room 1

## Hacker-proof your app using Functional Tests

Intermediate level

Ankita Gupta & Anamika, LinkedIn

Many Functional Testing/QA Engineers don't have insights into Security vulnerabilities. Usually an enterprise has a separate security testing team solely for that task and functional testers have to rely on them for the security audit.

Security is an important part of Testing but not every build of the application is tested for security issues. All Functional testing teams have a load of automated test cases which are run on every build of the application but they don't check for security flaws.

In this talk we would be showing how you can use your existing test cases and automatically perform security testing on your web application. This is made possible using IronWASP, an open source security scanner and its companion libraries.

If you are a software tester or developer even without any security expertise this talk will help you secure your web application better using your existing functional test cases.

## Talk

Sep 06 10:30 AM - 11:30 AM (60 mins) in Grand Ball Room 1

## Page Objects Done Right

Intermediate level

Oren Rubin, Testim

In this talk I will walk the audience step by step at building tests using the Page Object Design Pattern, making several attempts until we reach the current recommendation. We'll see the dos, don'ts, and common pitfalls.

In this presentation I'll also cover the Page-Factory Design Pattern, and best practices for dealing with asynchronously and how to remove the deadly "random sleeps".

Sep 06 03:15 PM - 03:45 PM (30 mins) in Grand Ball Room 2

## There are three things that matter in cross-browser test automation- locator, locator, locator - But how do you find the right one?

Intermediate level

Prasada Raju, Sayeureqa

Many a time the same locator in your automated script does not work well at all in all browsers/versions and operating systems or works but with flaky results in some browsers/versions. And then numerous hours are spent using a trial and error approach to either continue the hunt for a different locator that works across the board or build "if-browser/version-use-this-locator" kind of logic in your test scripts.

In this session, we will show you an approach that will help you eliminate so much pain and cost from your cross browser test automation.

## Talk

Sep 05 04:30 PM - 05:00 PM (30 mins) in Grand Ball Room 1

## How we trained our dragon built on enterprise practices to adopt and fail fast with OSS

Intermediate level

Sushant Choudhary, ThoughtWorks

Traditionally companies built over enterprise infrastructure and practices have been hesitant to adopt new practices, framework or tools especially one which can change with a single commit on github. So was the case when mobile portfolio of one of the largest airline was developed and tested in an agile way and striving for continuous delivery.

This is a story of remote-enablement and developing a sense of confidence in the dragon to go open source and base its complete testing infrastructure on OSS. Today their Mobile testing with its own challenges posed by H/W, OS and Design guidelines is under the OSS umbrella with practices like BDD and compliance with test pyramid adopted with a scalable automation framework built on Ruby, Cucumber, Watir Webdriver and Calabash.

Sep 06 02:30 PM - 03:00 PM (30 mins) in Grand Ball Room 2

## How To Find Information On Your Own

Intermediate level

Dave Haeffner, The Selenium Guidebook

Whether you're just starting out, or are well on your way, there are more resources to dig through than you have time or know what to do with. With blogs, videos, documentation, forums, meetups, conferences, books, and mailing lists, the signal to noise ratio is all out of whack. In 30 minutes, I'll be your tour guide as I walk you through the information landscape of Selenium and show you which resources are worthwhile for your context and how to find them.

## Talk

Sep 05 04:30 PM - 05:00 PM (30 mins) in Grand Ball Room 2

## There is more treasure in Selenium nodes than in all the pirate's loot on Treasure Island.

Intermediate level

Syed Khaja Habeebuddin, Sayeureqa

There is so much valuable data that Selenium Nodes writes into log file(s) when tests get executed on them. So much of this data is not mined for actionable intelligence.

In this session, we will show you how operating system level metrics can be combined with data from Selenium nodes to result in rich actionable intelligence that will tremendously aid in the analysis of test failures, react to test execution flakiness, and to improve your automated test resiliency.

## Workshop

Sep 05 10:30 AM - 12:00 PM (90 mins) in Esquire

## Designing selenium webdriver scripts in an effective manner to reduce script rework

Intermediate level

Yagnesh Shah, Moolya Software Testing

Automating a test scenario can be pretty easy once we get a hold of any tool. Designing hundreds of tests and making sure that the script rework involved for each release is at minimum, takes a good level of experience. Collection of such good practices & the architecture for designing all your test scripts will be demonstrated.

To enable you start with selenium webdriver for your own project. Template which will quickly facilitate you to initiate scripting with some of our additional user defined libraries. Example, read/write to excel sheet and many other. Hands on practice for scripting test scenarios as per the automation architecture to ensure less maintenance of scripts.

We will also demonstrate how to handle reporting for hundreds of tests on real time basis for each test suite and hence making our stakeholders aware of the test results on real-time. Our code for this reporting dashboard will be available for the testing community on github.



### **Andreas Tolfsen**

Andreas Tolfsen works for Mozilla on the tools and automation code that underpins the web platform. In particular his work is currently focused on Marionette, the next generation replacement to FirefoxDriver.

He's a long-time free software contributor who started out on a career in music whilst dabbling with software, got the priorities wrong and ended up dabbling with music instead.

He used to lead the build- and test infrastructure team at another browser vendor. Whilst no longer work, opera is still a passion.



### **Artem**

Over 7 years of automation experience, lead of one of testing teams at Yandex, responsible for testing of most-visited website in Russia - [www.yandex.ru](http://www.yandex.ru)



### **Dhimil Gosalia**

Working with BrowserStack. Love mobile. Always Java. Hacking around Selenium.



### **Ankita Gupta**

I am a Software Engineer- Quality and an Open Source Security Researcher. I am currently working with LinkedIn.

I am also involved in Open Source Web App Security. I recently presented a tool at NULLCON 2014 on "Automating Pentesting without Pentesters" which is mainly combining Functional testing with Security tools.



### **David Tolley**

I'm a passionate engineer at Salesforce with almost 10 years of quality engineering experience. I'm an LMTS at Salesforce on the Test Effectiveness team, where my mission is to help engineers be as productive as possible.



### **Anand Bagmar**

I am a hands-on and result-oriented Tester with 17+ years in the IT field of which 13+ years in the software test field.

I am passionate about shipping a quality product, building automated testing tools, test automation, infrastructure and frameworks. I have also built open-source tools related to testing - WAAT, TTA and TaaS.

My specialities include: Automated testing, building test automation frameworks, Agile, Coaching, Consulting.

I have spoken in over 10 conferences across the world. The most recent being Agile India 2014 in Bangalore India.

**Igor Khrol**

Automated testing specialist. About 8 years experience in test automation in various roles: engineer, architect, manager, consultant, trainer. Experience in the majority of popular tools (Selenium, HP QTP, TestComplete, JMeter). Currently I'm programming mostly in Python but used to write in other languages (Java, C#, JavaScript Ruby, VBScript).

**Isaac Murchie**

Isaac is a software developer working on test automation frameworks and tools. He loves to write code in Python and JavaScript. He also has a PhD in Sanskrit, and loves to explore intellectual history.

**Jim Evans**

I have been a part of the Selenium project for nearly four years, and have created and maintained the Internet Explorer driver and the .NET bindings. I am currently employed by Salesforce.com, and live in the Tampa, Florida area of the U.S.

**Mayur**

I love to do projects, project equals to challenging problems, that's why I love challenging problems. ( $A = B$ ,  $B = C \Rightarrow A = C$ ).

**Naresh Jain**

Naresh Jain is an internationally recognized Technology & Process Expert. Over the last decade, he has helped many Fortune 500 companies like Google, Yahoo, Amazon, HP, Siemens Medical, GE Energy, Schlumberger, EMC, Alcatel Lucent, to name a few clients.

Naresh is leading two tech-startups, which build tablet-based adaptive educational apps for kids, conference management software, social-media search tool and a content curation and voting platform. His startups are trying to figure out the secret sauce for blending gamification and social learning using the latest gadgets.

As an independent consultant, Naresh worked with many fortune 500 software organizations and startups to deliver mission critical enterprise applications. Having played various roles of Founder, Agile Coach, Quality Evangelist, Technical Lead, Product Owner, Iteration Manager, Scrum Master, Developer, QA, Recruiter, Build Master, Mentor & Trainer, he is well equipped to help your entire organization to rapidly adapt Agile and Lean methods.

Naresh founded the Agile Software community of India, a registered non-profit society to evangelize Agile, Lean and other Light-weight Software Development methods in India. Naresh is responsible for conceptualizing, creating and organizing 50+ Software conferences worldwide.

**Naresh K**

I am currently leading Retail mobility solution development at Enteleki. I have been working on the web applications development for more than 7 years. I strive to develop sustainable applications that deliver high business value. I have introduced several groovy technologies at enteleki, which has helped us to deliver with improved productivity. I am also an organizer of Bangalore Groovy Grails Meetup.

**Puneet Kala**

I am from Bangalore, India and I have been contributing to Joomla from past two years, I am an open source enthusiast and I love working with Selenium.

I have been part of Google Summer of Code from past two years, I was a student last year and did a project of setting up System Test Suite using Selenium-webdriver for Joomla-CMS and this year I have volunteered to be a Mentor with Joomla-CMS for one of the Selenium-Webdriver Project.

I started working in Automation when I joined Oracle in year 2012, I worked on Selenium-Webdriver with JUnit, that is when I started learning automation, then later on I started contributing in Open Source Organisation like PHPMyadmin, Joomla and most of my free time since then goes into contributing for Open Source Organisations. I have a good amount of experience in working with Selenium-Webdriver with PHPUnit. I have also worked on Selenium-Webdriver for Ruby.

**Derrick**

Software Engineer at Purdue University.

**Oren Rubin**

I have over 16 years of experience in the software industry (IBM, Wix, Cadence, AppliTools) in various roles, including 3 test-related products. I am a community activist, and contributed a lot in the last 2 years:

- I'm co-organizing of the Selenium-Israel meetups, The Ember meetups, and lately Angular's (via GDG)
- Beside organizing many community events, I've also presented in a few
- I teach the Web Development course at the Technion (Israel Institute of Technology)

**Prasanna Kanagasabai**

I am a Information Security tester with close to 10 years of experience in this field. I have been speaking at conferences in India. I have written a few publications in security magazines. My choice of scripting language is python. I am a lazy blogger. Recently have got interest in photography.

**Sreedevi Vedula**

I am a passionate tester with over 9 years of experience in test automation in UI and API test frameworks developed in Java, Python, Ruby and JavaScript and using BDD practices.

My experience in reverse chronological order:

- As a Quality Analyst at ThoughtWorks,
- As a Lead Consultant at OpenText
- As a Senior QA Engineer and QA Engineer at OpenText and Virtusa



### Sushant Choudhary

I am a passionate technology lover and a sports enthusiast. Considering the ever changing technology scenario and its impact on the society, I am always keen on exploring and applying new developments in software engineering. A quality analyst by profession, I get opportunities to explore the world of tools, frameworks and languages for the constant development of the quality factor in web or mobile space. With the fast paced development practices and ideologies, testing has a much more important role to play and I am at it everyday. When not discovering a fault line, you can find me running, playing cricket or planning my next adventure tour.



### Syed Khaja Habeebuddin

Senior Java Developer and Selenium Automator - Experienced in Selenium Internals - WebDriver, Hub, Nodes, Java Bindings, Selenium IDE - - Successfully integrated Selenium with Continuous Integration tools like Jenkins, Bamboo, Hudson/Maven.



### Dima Kovalenko

I have been working with Selenium for close to 6 years, and for 5 years before that with other test automation tools and manual testing. I am active in Selenium Developer community and submit minor bug fixes to the core product whenever time allows.



### Tarun Lalwani

Director & Founder of Tarun Automation Research & Labs Pvt Ltd (TARLABS™). TARLABS™ specializes in implementing custom Automation solutions and framework using different tools like QTP, Selenium, Python, Scrapy, Import.io.

I started TARLABS™ in Jun 2013 and currently working on establish the company with core expertise in Test Automation and custom automation as well. I started my career with Infosys in 2004 as a Manual tester. My interest in development with VB6, took me towards Automation of IE using COM and later to explore QTP. After exploring QTP for over a year and answering many threads on sqaforums.com, I decided to write the first every book on QTP. In April 2009, I released my first book QuickTest Professional Unplugged. After that I authored 4 more QTP Books - And I thought I knew QTP!, Descriptive Programming Unplugged, UFT Interview Unplugged, QuickTest Professional 2nd Edition. I have got various accolades during my 8 years with Infosys.



### Yagnesh Shah

Yagnesh Shah started his career as a Tester. Being curious in nature he quickly realized the different ways in which people practice testing in the industry. He is a strong follower of context based & exploratory testing. Moolya is his research lab where he experiments with his new ideas. He is an Enthusiast Tester | Automator | Coach | Blogger | Writer | Technologist | Movie & Game lover | Swimmer.

He has a keen interest towards understanding Automation. His experiments on Automation in Moolya (with guidance from colleagues) led to creating pillars for Automation Group (called Transformers) & has been able to make an Automation Framework for Moolya. He is leading a team of Automation Testers with more than 10 people.



## 4<sup>th</sup> Annual Selenium Conference

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# Thank You!

