



Financial Forum

LONDON

Technologies for DevOps, test automation and AI



18th October 2022
Hilton Canary Wharf

Automation for testing, quality assurance and continuous app delivery

WELCOME

Dear Delegate,

A warm welcome to the 2022 edition of the QA Financial Forum London. We've been running this event since 2016, although Covid caused us to break for two years and so today still feels like a fresh start.

I know that the working patterns for many of our delegates have changed and so making time for a conference has become more challenging. So we have strived very hard to make sure our agenda today is relevant, and I do believe we are addressing some of the core challenges that you and your firms are facing.



One of those challenges is the growing regulatory scrutiny of the way in which firms develop and test software, as we move towards new laws from the EU and the UK parliament that will enforce new standards of digital resilience.

I believe this is one reason why our expert speakers today are willing to discuss what they are doing and share their insights; because there is a welcome trend toward sharing more information on how the technologies of DevOps connect with those emerging standards.

However, we have also guaranteed our speakers that this is a Chatham House Rule event, with content to be treated as "background only". In this way they get their employers' permission to speak. So I would be grateful if you could respect that.

We welcome feedback and ideas that will help shape the agenda of our next event. Do get in touch with us via info@qa-financial.com.

I hope you enjoy the day, and we look forward to meeting you during the day.

A handwritten signature in purple ink that reads "Matthew Crabbe".

Matthew Crabbe
CEO, QA Media

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gitlab.com

GitLab is the One DevOps platform from planning to production, bringing teams together in one application. Ship secure code faster, deploy to any cloud, and drive business results.



perfecto.io

Perfecto by Perforce powers exceptional digital experiences and strengthens every interaction with a quality-first approach for web and mobile apps through a cloud-based test environment. From creation to execution and analysis, Perfecto has a proven, unified solution for mobile and web testing. Now, BlazeMeter (www.blazemeter.com) joins forces with Perfecto to add AI-driven, unified, shift-left continuous testing to Perforce's growing enterprise quality portfolio. BlazeMeter is a complete and integrated continuous testing platform built on and fully compatible with open source. Used by some of the largest global enterprises, BlazeMeter provides a single solution for application quality for all teams across the CI/CD pipeline. The SaaS-based platform is a Gartner Peer Insights Customers' Choice for Software Test Automation. Together, Perfecto and BlazeMeter will solve the most difficult quality challenges in DevOps for a global customer base.



tricentis.com

With the industry's #1 Continuous Testing platform, Tricentis is recognized for reinventing software testing for DevOps. Through agile test management and advanced test automation optimized to support over 150+ technologies, we provide automated insight into the business risks of your software releases—transforming testing from a roadblock to a catalyst for innovation. Tricentis is the only vendor to achieve “leader” status in all three top analyst reports. This honor is based on our technical leadership and a Global 2000 customer base of 1500+ companies. Customers rely on Tricentis to achieve and sustain test automation rates of over 90%—increasing risk coverage while accelerating testing to keep pace with Agile and DevOps. Tricentis has a global presence in Austria, Australia, Belgium, Denmark, Germany, India, Netherlands, Singapore, Switzerland, Poland, United States and the UK.

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qyrus.com

Deliver high-quality software faster and more efficiently with codeless, self-healing, and predictive test automation. Qyrus is a comprehensive, codeless, and highly intelligent test automation platform for all things digital. It efficiently tests Web, Mobile, and APIs with a single AI-powered cloud-based platform that detects and eliminates bugs much earlier in the software development lifecycle. Its codeless, taxonomy driven interface helps increase test coverage and eliminates the need for time-consuming custom frameworks and expensive test infrastructure. Qyrus uses AI to empower everyone. It empowers testers, developers, and business teams to produce higher-quality products for an exceptional user experience. It helps to maximize human ingenuity, minimize unnecessary dependencies across the testing lifecycle, reduce human error, increase scale when needed, and decrease operating and testing costs.



saucelabs.com

Sauce Labs is the company enterprises trust to deliver digital confidence. More than 3 billion tests have been run on the Sauce Labs Continuous Testing Cloud, the most comprehensive and trusted testing platform in the world. Sauce Labs delivers a 360-degree view of a customer's application experience, helping businesses improve the quality of their user experience by ensuring that web and mobile applications look, function, and perform exactly as they should on every browser, OS, and device, every single time. Sauce Labs enables organizations to increase revenue and grow their digital business by creating new routes to market, protecting their brand from the risks of a poor user experience, and delivering better products to market, faster.



keysight.com

Keysight Technologies, Inc. (NYSE: KEYS) delivers advanced design and validation solutions that help accelerate innovation to connect and secure the world. Keysight's dedication to speed and precision extends to software-driven insights and analytics that bring tomorrow's technology products to market faster across the development life cycle. Keysight's Eggplant test and automation intelligence solutions deliver continuous testing of applications, devices, and digital services enabling your teams to deliver higher quality applications faster than ever before.

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From development to QA, Parasoft's AI enabled technologies reduce the time, effort, and cost of delivering secure, reliable, and compliant software, by integrating static and runtime analysis; unit, functional, and API testing; and service virtualization.



imandra.ai

Imandra Inc. is the world-leader in cloud-scale automated reasoning, democratizing deep advances in algorithm analysis and symbolic AI. We work with start-up venues, large investment banks, national exchanges and financial technology vendors.

BRONZE



applitools.com

Applitools is on a mission to help test automation, DevOps, and software engineering teams release visually perfect mobile and web apps. We are the only commercial-grade visual-AI solution that validates the user interface in a fully automated manner, with our ground-breaking image processing stack that we developed from scratch in-house. The Applitools platform seamlessly integrates with your existing Appium tests and also runs across multiple browsers/devices on our Ultrafast Test Cloud. For more information, visit applitools.com



AGENDA

TUESDAY 18TH OCTOBER 2022

SOFTWARE RISK MANAGEMENT AND TECHNOLOGIES FOR CONTINUOUS APP

08:00 - 08:45

Arrival, Refreshments, and Networking

08:45 - 09:00

Welcome Address

Matthew Crabbe, CEO and Founder – QA Media

09:00 - 09:30

The cutting edge in technology for the Cloud infrastructure: microservices, observability, Kubernetes and eBPF at Citi

Speakers:

- **Anthony Warden, MD and Global Head of High-Performance Architectures, Citi**
- **George Andrikopoulos, Senior Vice President, Citi, in conversation with QA Financial.**

Citi, like other leading banks, has made the transition to multi-Cloud infrastructures for software development. Now the emphasis is on leveraging Cloud for high-performance architectures, notably microservices. Anthony Warden and George Andrikopoulos will describe how their team created a framework for microservices-based development for the bank's capital markets domains that delivered greater than 100x improvement to latency from milliseconds to 10s of microseconds.

Their global markets team has become a centre of excellence within Citi, consulting with other business units on how best to deliver engineering improvements and accelerate application delivery. A focus of our conversation will be on how microservices, Cloud and container technologies are changing the landscape of trading software development and increasing the potential for deep observability. We'll also cover how the use of eBPF has simplified development and enabled application components running at the kernel level used to control and monitor the architecture.

09:30 - 10:00

The impact of end-to-end automation: How Lloyds is speeding delivery of mobile apps

Speakers:

- **Abirami John, Quality Lead, Lloyds Banking Group**
- **Introduced by Siara Mahal, Application Quality, Perfecto | BlazeMeter**

Financial firms are faced with the challenge of how to maintain a constant technological evolution. They have to maintain their ability to deliver high-quality value to their customers; which means increasing the speed of app delivery, irrespective of where they are in their transformation programmes. Without continuous testing and automation, that delivery challenge would be impossible.

Introduced by Perfecto, Abirami will discuss the challenges of continuous test automation in a large, complex organization such as Lloyds. Where do you start, and how do you know which projects will have the most impact? She will look at how automation can be implemented from app development through to deployment and right across the mobile application development toolchain.

Abirami will also discuss how the scope and the practicalities of larger digital transformation projects impact on mobile application delivery life-cycles.



AGENDA

TUESDAY 18TH OCTOBER 2022

SOFTWARE RISK MANAGEMENT AND TECHNOLOGIES FOR CONTINUOUS APP

10:00 - 10:30

Open-source Test Automation: Why You Need Appium

Speaker:

• **Eyal Yovel, Senior Solutions Architect, Sauce Labs**

A growing number of financial firms are turning to Appium - in particular because they can use it to accelerate and scale test automation across hundreds of different mobile devices. And it can be argued that well-established open-source communities such as Appium's - in which hundreds of good developers are contributing their work in their own time - are in tune with the increasing focus on digital resilience.

In this session, Eyal will explain why you should embrace Appium and he'll discuss his tips and tricks for using Appium. He'll also take a deep-dive into Appium's client-server architecture; the new Appium Inspector and its "hidden" features; the different types of mobile files and mobile applications covered as well as locator strategy for iOS and Android. Finally, he'll discuss how to start using Appium in Java and WebDriverIO frameworks.

10:30 - 11:00

Coffee & networking break

11:00 - 11:30

Is Test Service Virtualization the Future for Software Testing? Santander and Barclays Share Their Insights

Speakers:

• **Kyle Brown, Lead Engineer, Santander UK**

• **Paul Downing, Service Virtualisation & Test Data, Barclays**

• **Jochem Feekes, Head of Professional Services EMEA, Parasoft**

Imagine the opportunity for major banks to have a Cloud-based virtualized test environment for every business division. Repeatable, consistent end-to-end test environments for the vast majority of app releases. That's the direction in which our panelists are heading. They will discuss how virtualization can now be adopted relatively quickly, and share how they have been using this cutting-edge technology to accelerate customer-driven software development. We'll discuss how they have been able to demonstrate the ROI from their investment in virtualization and the alternative routes to implementing new technology across the enterprise.

11:30 - 12:00

Building a Platform for DevSecOps: Finance industry Case Studies

Speaker:

• **Martin McVay, Solutions Architect, GitLab**

What does the ideal platform for DevSecOps look like? How can you most effectively manage compliance requirements, version control and dependency vulnerabilities in software releases? Many financial firms are in a transition from managing these critical requirements from slow, waterfall, legacy processes to an integrated DevOps approach in which security scanning - for example - can be embedded early in the SDLC. Referencing relevant case studies at leading financial firms that have worked with GitLab, Martin will explain how CISOs at leading banks and insurance companies are accelerating DevSecOps with new technologies for software quality management at a time when staff shortages are adding to the pressure for change.



AGENDA

TUESDAY 18TH OCTOBER 2022

SOFTWARE RISK MANAGEMENT AND TECHNOLOGIES FOR CONTINUOUS APP

12:00 - 12:30

Unlocking the benefits of Agile: A platform approach to speeding application delivery at Shawbrook Bank

Speakers:

- *Somnath Chakraborty, Senior Vice President, Quinnox*
- *Hameed Khairani, Director of Engineering, Shawbrook Bank*

Somnath will be joined by Hameed to describe how Shawbrook, the specialist bank for retail and business customers, is using Quinnox's Qyrus platform to accelerate delivery of apps for its lending business. As banks come under growing pressure to accelerate digital initiatives and anticipate the customer requirements of tomorrow, application software delivery has come to rely on cross-functional Agile teams to rapidly deliver apps for changing customer requirements, and to meet the needs of intermediaries and internal business teams, such as underwriters and customer service representatives. But software testing tools have not always kept pace with the shift to Agile development, and the market is full of fragmented point-solutions and maintenance-heavy frameworks. We'll hear how the Qyrus team employs a platform approach to unlock benefits for Shawbrook across the full value stream of application delivery.

12:30 - 13:00

Audience Interactive Session: The Psychology of Testing: How Should We Be Thinking?

Speaker:

- *Andy Redwood, Principal Consultant, TTC Global (a Tricentis global partner)*

Drawing on his long experience leading test automation programmes at financial firms including JP Morgan, Credit Suisse and Merrill Lynch, Andy will lead a session designed to help you understand how you can make better decisions on software quality management. His starting point is that human psychology and physiology is complex and affects the decisions we make as IT professionals. Different identities spawn different roles, creating power situations between managers and testers. Like any animal, we are subject to habitual conditioning by our environment and the people who have influenced us. That conditioning affects how we perceive situations and make judgments. How does this affect how we test and how we assess risks? And how do we decide how much testing is enough? Andy's session will help you decide whether you can think differently.

13:00 - 14:00

Lunch & networking



AGENDA

TUESDAY 18TH OCTOBER 2022

SOFTWARE RISK MANAGEMENT AND TECHNOLOGIES FOR CONTINUOUS APP

14:00 - 14:30

Automation and transformation at a leading UK wealth manager: How a new enterprise testing strategy was critical to transition to a new platform

Speakers:

- **Andrew Young, Head of Test, Assurance, Release Management & Intelligent Automation, Intellect Design Arena.**

Intellect Design Arena is a specialist in financial technology platform. Introduced by our sponsor, Eggplant, Andrew will take us through a detailed case study of how one of the UK's largest private client wealth firms was able to transition its entire business book to that new platform while delivering a challenging and complex digital transition programme. Test automation was a key enabler in this change and Andrew will explain how the test strategy was designed and embedded across the enterprise, and how this has moved testing up the value chain.

Test automation now supports more than 250 app releases per year with a release success rate of 99.6% over the past 15 months and zero defect leakage into production for the client firm's major policy engine quarterly releases. Wealth management firms are facing challenging demands for IT change as the needs of their customers are transformed beyond recognition, so this session will be invaluable for any delegate interested in re-thinking software testing and their ability to evolve and accelerate application delivery.

14:30 - 15:00

Verification and compliance for complex markets: How software for exchanges and trading venues can be tested with AI

Speakers:

- **Emily Bignell, Executive Director, Head of Sigma X MTF, Goldman Sachs**
- **Paul Brennan, Chief Strategy Officer, Head of Growth for Financial Markets, Imandra**

Software outages at exchanges and trading facilities can have a major impact on markets. Regulators are increasing their scrutiny. The onus is on firms to verify that their systems comply with MiFID requirements and that their rule book disclosures are accurate. Our panel will discuss how this compliance can be built into model-based software development and how AI can be used for predictive testing in low-latency markets. And our experts will be sharing their predictions on the evolution of automated trading, and how the challenges of ever-increasing complexity can be met.

15:00 - 15:30

Coffee & networking break



AGENDA

TUESDAY 18TH OCTOBER 2022

SOFTWARE RISK MANAGEMENT AND TECHNOLOGIES FOR CONTINUOUS APP

15:30 - 16:00

Open-sourced data management and software development: How the French Treasury has pioneered a new platform

Speakers:

- **Mohamed Mehdi Ben Aissa**, *Data and Cloud Architect, DGFIP*
- **Sinh Chung Nguyen**, *Big Data Architect, DGFIP*

The Direction Générale des Finances Publiques (DGFIP) is the treasury department of the French state. As a fundamental policy, it retains complete control of its information systems. The merger of Cloudera and Hortonworks in 2019 fundamentally changed the dynamics of the Hadoop distribution marketplace, and that prompted a discussion between DGFIP and Électricité de France on alternative approaches to open source data management.

Mohamed Mehdi and Sinh Chung will describe how together DGFIP and EDF have over the past 18 months developed a new, free, Hadoop distribution platform - the Trunk Data Platform (TDP). They'll explain how they designed their plans for data-centric, autonomous and secure construction and distribution of TDP, and how considerable savings were achieved. They'll share the different use cases of TDP - highlighting its role in the SDLC - its different characteristics, functions and the impact it has on the governance of data. Finally, they'll also describe how the adoption of the new platform has changed the way DGFIP's development teams are organised, along the lines of a 'You build it, you run it' approach.

16:00 - 16:30

Betting on Testing: Insights from a Leading US iGaming Platform

Speaker:

- **Dono Greeff**, *Director of QA, GAN*

Nasdaq-quoted GAN is the leading SaaS supplier to US online betting companies - a market that has been growing rapidly since the lifting of the Federal ban on online betting in May 2018. And with the NFL season opening in September and the soccer World Cup starting next month, Dono will share how his team is managing performance testing and stabilisation across its platforms for these massive sporting events. He'll explain how iGaming companies like GAN manage sensitive private data and how they embed mental health protocols for customer protection in their apps. Dono will be drawing on his previous career with financial services firms including ClearBank, Currency Cloud and Earthport to share his insights on how QA and testing for the online betting industry compares.



AGENDA

TUESDAY 18TH OCTOBER 2022

SOFTWARE RISK MANAGEMENT AND TECHNOLOGIES FOR CONTINUOUS APP

16:30 - 17:30

Benchmarking Engineering Transformation: Metrics for Digital Resilience

Speaker:

• **Angela Wallace, Engineering Lead, Lloyds Banking Group**

Angela will share the story of Lloyds' transformation from manual testing to automation, and how the bank continues to 'shift left'. Large financial firms are now setting new standards of reporting for digital resilience - with EU and UK legislation on the horizon - and Angela will describe how her team sources information from Lloyds' DevOps platform to create benchmarks for software quality and so effectively target change and share best practice across the bank. Testing apps for accessibility is a current priority, and Angela will share her experience of using open-source and proprietary tools for accessibility and other testing requirements.

17:30 - 18:30

Social drinks in The Snug Bar

SPEAKERS



George Andrikopoulos
Citi
Senior Vice President



Anthony Warden
Citi
MD and Global Head of
High-Performance Architectures



Abirami John
Lloyds Banking Group
Quality Lead



Eyal Yovel
Sauce Labs
Senior Solution Architect



Paul Downing
Barclays
Service Virtualisation Lead



Kyle Brown
Santander UK
Lead Engineer



Jochem Feekes
Parasoft
Professional Services
EMEA



Martin McVay
GitLab
Solutions Architect



Somnath Chakraborty
Quinnox
Senior Vice President

SPEAKERS



Hameed Khairani
Shawbrook Bank
Director of Engineering



Andrew Young
Intellect Design Arena
Head of Test, Intelligent
Automation, Release
Management and Assurance



Emily Bignell
Goldman Sachs
Executive Director, Head
of Sigma X MTF



Paul Brennan
Imandra
Chief Strategy Officer, Head of
Growth for Financial Markets



**Mohamed Mehdi
Ben Aissa**
DGFIP
Data & Cloud Architect



Sinh Chung Nguyen
DGFIP
Big Data Architect



Dono Greeff
GAN
Director of QA



Angela Wallace
Lloyds Banking Group
Engineering Lead



Andy Redwood
TTC Global
Principal Consultant

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