

**TEST FASTER. TEST SMARTER.**  
**Automate Anything**

**eggplant**  
Test Automation Software



# Automated testing

## Keeping up with the times.

Software deployments have gotten faster and more complex. Can your Automated Testing Tool hold up?

## Here's all you need to know.

Continuous testing is not simply just integrating with other tools. It is the ability to fulfill both the Development and Operations side of DevOps.

# Introduction

Since 2015, many companies have been transitioning from semi-annually or quarterly releases to weekly, daily, and even releases by the minute.

Organizations such as Amazon release software roughly every 15 seconds. Mobile Apps are released to their Mobile App Stores at the rate of 1,000 per day.

Applications that were once built to be monolithic are becoming technology stacks that integrate many different pieces of software that perform different functions. In fact, Netflix has a technology stack of over 42 separate applications.

Legacy Automated Testing Tools built for architectures from over 10 years ago cannot keep up.

Built originally for a limited set of technologies and the Waterfall Methodology, these tools, instead of being re-architected from the ground up, have simply had new features bolted on just to stay relevant.

**Is your Automated Testing Tool delivering continuous quality as promised?**

# Top 7 things you need to know

Things to consider when suiting up for Modern Software Development:

## 1. DevOps and continuous testing

Continuous testing is not simply just integrating with other tools. It is the ability to fulfill both the Development and Operations side of DevOps. DevOps breaks down when there is no communication between teams and any part of the release process is hampered by unintended delays due to things such as Objects in Automated Tests all of a sudden not recognizing the Application Under Test.

## 2. AI driven testing

Artificial Intelligence is being added as a feature to Automated Testing Tools, but what does that mean? In many cases, it is simply using AI to pick from a given set of test cases to choose which ones should be run. The underlying algorithms are not taking factors into account such as realworld performance or code changes. Is AI that narrow in scope going to provide a benefit to Automated Testing?

## 3. API and web services testing

Applications are getting more and more connected. This makes API and Web Services Testing critical. The sheer number of connected applications requires an Automation Tool that can perform API and Web Services Testing. Any Automation Tool that has an API testing capability should be able to use any Service Virtualization Software. It should be easy to configure and use so that a nontechnical user can setup and execute API and Web Service Tests.

## 4. Process mapping

Modern Automated Testing Tools need to leverage Digital Twin Technology that can map more than business processes. Digital Twins can map schematics, or UI, or processes. The Automated Testing Tool should also be able to ingest BDD documents, Code Snippets, User Interfaces, and even Automated Test Cases to create Digital Twins with minimal effort from the Non-Technical software development professional.

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## 5. Device testing

Siemens predicts that over 26 billion connected devices will be in use by 2020. These devices aren't only different from one another but serve many diverse customers and needs. Necessitating that Automated Testing Tools are technology and UI agnostic. Each Automated Testing Tool feature should be available for any and all Devices used by the Application Under Test.

## 6. Cross-platform testing

Being able to test across Browsers is no longer enough. Most applications run on multiple platforms that have different testing needs. Any Automated Testing Tool that cannot do this from a single test is going to cost more in Automated Script Development, Maintenance, or even prevent some mission-critical scenarios from being Automated at all.

## 7. Integrated device cloud

Executing Automated Tests on Mobile Farms and Virtual Machines is nothing new. An Automated Tool now needs to be able to run Automated Tests against a variety of technologies, including IoT, sometimes even from the same Automated Test Case.

This should require a minimum number of customizations, preferably none, and not be constrained by the type of execution license your Automated Testing Tool has. Many existing Automated Testing Tools cannot support next generation hybrid architectures that require Automated Tests to be executed against IoT, Mobile, and other technologies such as Point of Sale.



Intelligent testing, monitoring, and analytics  
for continuous digital improvement.



# Evaluate

## Why you should re-evaluate your Automated Testing Tool.

- Can it support future technologies with minimal plug-ins? Each plug-in or add-on increases the chance that the Automated Test Tool will fail and will cause Automation errors during testing.
- Does it democratize software testing? Software success is becoming more of a factor of Customer Delight vs. no defect leakage into production (while still very important). To compensate, Automated Testing needs to be done through the eyes of the user. Automated Testing requires people with domain expertise with no technical skills as well as Automation Experts.
- What cost benefit or ROI have you experienced? Traditional Automated Testing Tools usually have high cost break even points and muddled cost benefit because the initial cost of automation, licensing, and Automated Script maintenance costs are very high. Open Source or Traditional Automated Testing tools require a lot of development time that resembles its own Software Development Lifecycle. This adversely impacts both budget and speed of automation.

**Connect with Eggplant today for a free audit of your current Automated Testing Configuration.**

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Learn more at: [www.keysight.com/find/eggplant](http://www.keysight.com/find/eggplant)

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