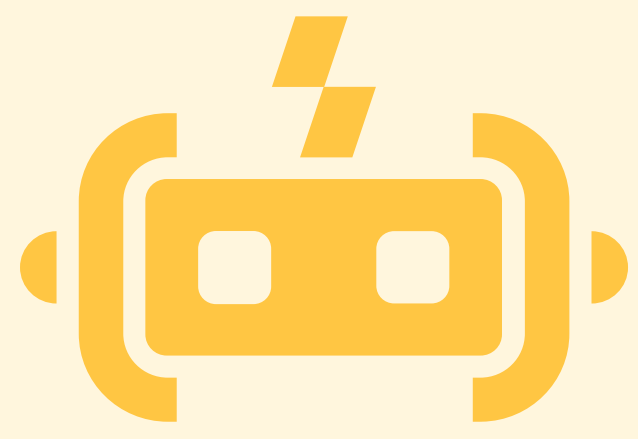


Continuous Quality Journey:

3 Test Strategies to Enhance Innovation Velocity





Your customers want new, amazing digital experiences. And they want it now. But they're not the only ones who will reward your innovation velocity; it's your workforce, future employees, and other stakeholders who will decide whether or not to do business with you. With how fast AI and other technologies are advancing, the pressure to innovate quickly will only increase, with organizations that excel in development velocity outperforming their peers with revenue growth up to five times faster.¹ No matter how you look at it, your need for speed has never been greater.

One way to increase innovation velocity to attract attention and stay ahead of competitors is to reduce bottlenecks. For many organizations, there is no larger roadblock than legacy software testing. That's where a testing strategy based on continuous quality comes in. By integrating testing throughout every moment of development, integration, and production, you can catch and fix errors faster so you can release high-quality and innovative products before the competition.

This ability to increase innovation velocity is another reason why Gartner® thinks that 70% of engineering teams will shift to continuous quality by 2026, up 20% from just last year.² "Consistently delivering business value with high quality and at high velocity has become critical for organizations seeking to mature their software development processes," they note. "Continuous quality... provides the framework for operational excellence that drives value, supports the realization of business outcomes for customers and streamlines operational processes."

In this guide, you'll learn how enterprise companies leverage a testing strategy based on continuous quality to significantly increase their developer velocity and shorten their time to market. By understanding how leading companies like Verizon, Roblox, and Quickset benefit from this testing approach, you'll learn how to test in a way that turns testing into an accelerant instead of a bottleneck.

¹ McKinsey, Developer Velocity: How Software Excellence Fuels Business Performance, By Shivam Srivastava, 20 April 2020

² Gartner, Innovation Insight: Continuous Quality, By Joachim Herschmann, Thomas Murphy, Jim Scheibmeir, 17 October 2023.



Why Moving With Speed Matters

Almost every U.S. adult now uses the internet (95%), has a smartphone (90%), and has high-speed internet at home (80%)³. However, the rise of digital has led to a rise in expectations: 70% of people agree that a poor digital experience impacts their decision to purchase⁴, while over 50% say they would ditch a digital product for a competitor after just 3-4 negative interactions.⁵

QA teams play a key role in preventing bugs from getting out the door, and yet 42% of people say they still run into bugs, defects, and quality issues in their digital experiences at least some of the time.⁶ The problem? Businesses are pushing out more digital experiences and products than ever before, with 86% of companies surveyed reporting an increase over the past three years in the applications they've developed, and 47% saying their production has doubled.⁷

The pressure is on to deliver faster, release more, and grow the bottom line. With increased release volume, shorter time frames between releases, and greater code complexity, developers who still rely on legacy tools and traditional approaches to quality control will struggle to keep pace, creating multiple obstacles to innovation velocity.



Wasted time

The longer it takes to run a test, the more time developers will spend waiting for feedback. In fact, it takes an average of 16 hours for a CI build to complete a typical QA cycle, which means developers lose two full work days before they get feedback.



Wasted money

An inefficient, traditional approach to testing makes your teams less productive, driving up costs by 38% in additional FTE time.⁸



Wasted focus

The 38% in additional FTE time? That's the equivalent of 15 hours per week per developer that you are paying people to not do what you hired them for – to build innovative products and features.

³ [Pew Research Center](#), Americans' Use of Mobile Technology and Home Broadband, January 1, 2024.

^{4,5,6} [Sauce Labs](#), Every Experience Counts. 2024.

^{7,8} [ESG](#), Economic Validation: Analyzing the Economic Benefits of Sauce Labs for Mobile Testing and TestOps, April 2023.

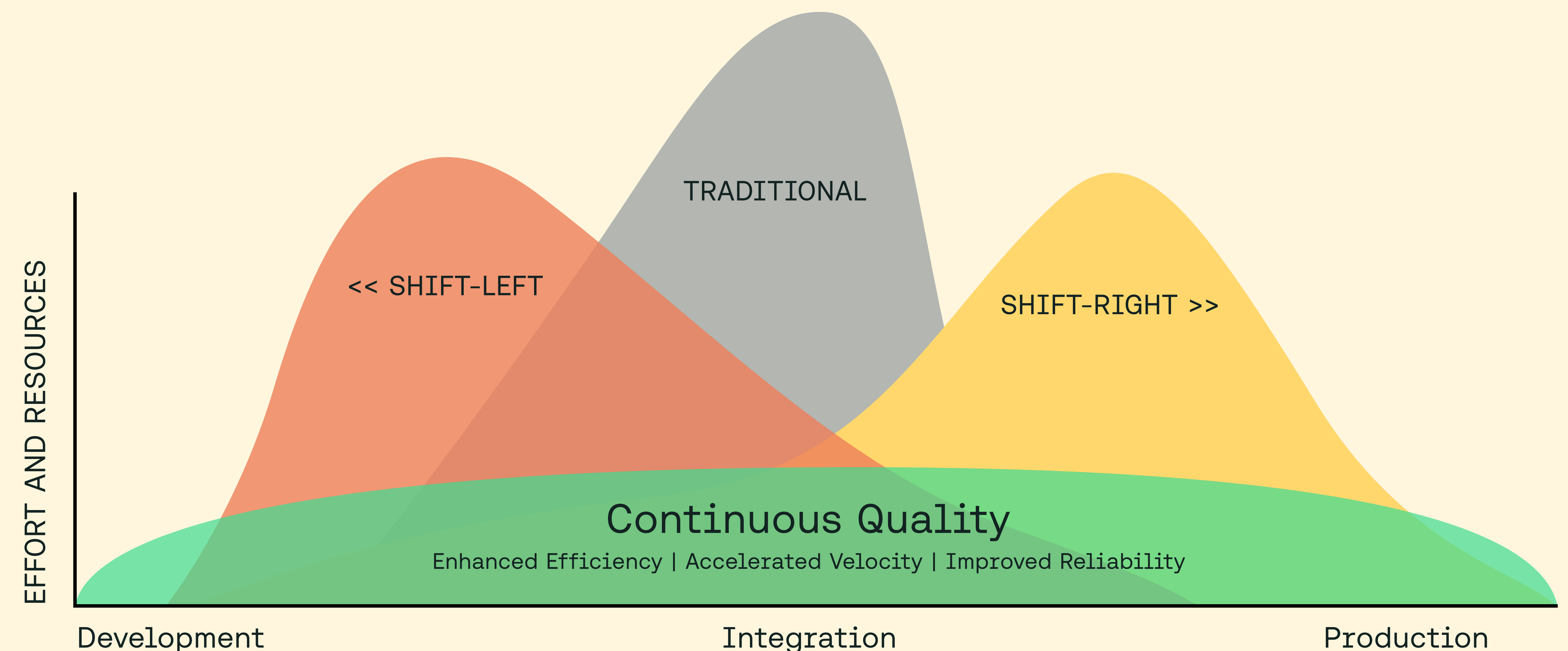


The 3 Ways to Implement Continuous Quality to Increase Innovation Velocity

The engineering and product teams responsible for bringing new products to market shouldn't have to make a trade-off between ensuring software quality and ensuring speed. In fact, there's a way to leverage testing in a way that improves quality while increasing innovation velocity, helping developers quickly experiment, iterate, and deliver digital solutions at scale without the wait.

That process is continuous quality. By shifting testing both left and right across the software development lifecycle (SDLC), engineers can incorporate testing insights when changes are easier and less time-consuming to implement.

An automated, end-to-end testing platform that is purpose-built for enterprises can provide the powerful AI-augmented tools that your organization needs to detect bugs and errors faster. The right testing platform provides everything you need to manage your complete testing infrastructure so you can scale and accelerate your testing program along with code volume. Not only does this allow developers to overcome the testing complexity that creates bottlenecks and impacts velocity, but it helps identify root causes so they can prevent errors in the first place, further reducing the time it takes to get quality code out the door.



Here are the three key components to look for in an automated testing platform when seeking to accelerate velocity.



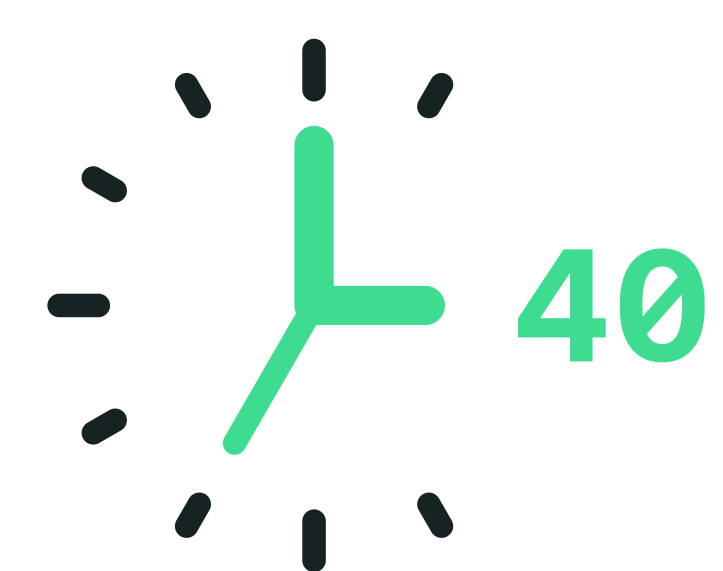
3 Test Strategies to Enhance Innovation Velocity →

Automate testing to ensure continuous quality throughout the SDLC

By letting their automated testing platform take on the vast majority of testing activities, developers can reduce the time they spend testing by more than 90%.⁹ Not only does this significantly reduce time to market, but it frees developers to spend that extra time working on new ideas that they wouldn't have had time for before.

The right automated test platform seamlessly integrates into your test strategy at every development stage for unparalleled extensibility, flexibility, and scalability across the SDLC, allowing you to test hundreds of virtual device, browser, and OS combinations using your framework of choice. This accelerates release velocity by improving quality at every stage of the process, reducing the amount of bad code that makes it into production when it is more time-consuming to fix.

The automation bottom line: enterprises that use an automated test platform can accelerate their time to release by up to 50% compared to in-house testing environments.¹⁰



40 hours

Time it takes to fix an issue after QA



4 hours

Time it takes to fix an issue during QA¹¹

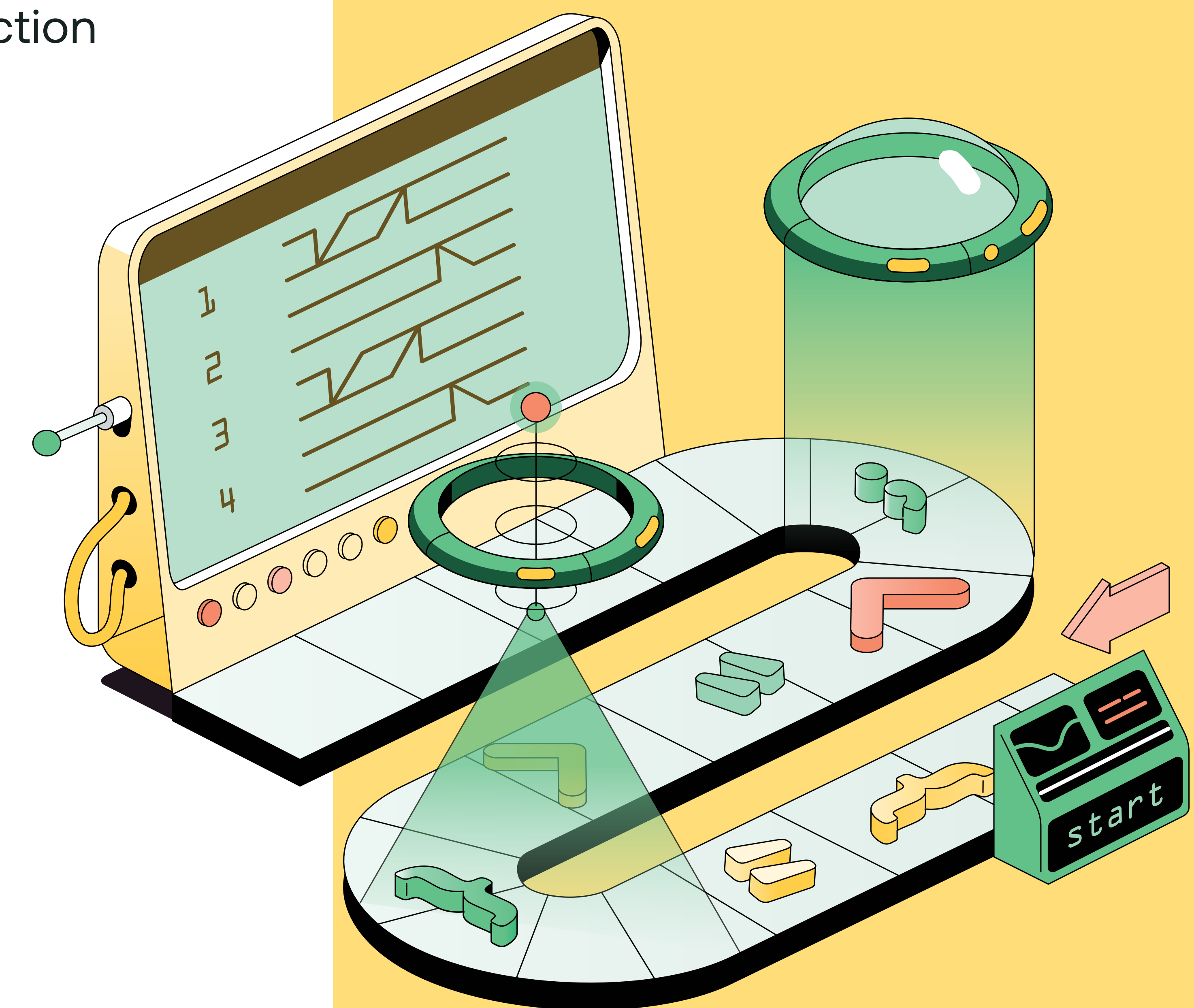


900 %

Faster to fix an issue during QA instead of waiting until later

The early bird spends less time getting the worm

The sooner you can fix an issue, the less time-consuming it is to fix.



⁹ Forrester, The Total Economic Impact of Sauce Labs, June 2023.

¹⁰ Enterprise Strategy Group, ESG Economic Validation Report: Analyzing the Economic Benefits of Sauce Labs for Mobile Testing and TestOps, April 2023.

¹¹ Forrester, The Total Economic Impact of Sauce Labs, June 2023.



3 Test Strategies to Enhance Innovation Velocity →

Discover flaws faster with visual testing and mobile app distribution

The faster you can identify an issue, the sooner you can get to work remediating it. But with enterprises managing teams of hundreds of developers dispersed across the globe, all working on the same applications simultaneously, it can be impossible to predict how a new line of code will create a cascading effect, impacting the visual experience of your application – or where that bug might be.

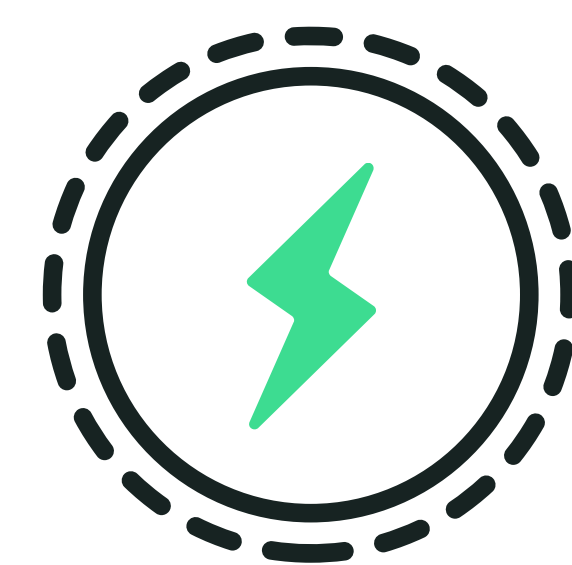
With an enterprise testing platform, you can automate visual testing to identify UI issues across operating systems, browsers, and devices as each change is pushed to production. By discovering visual inconsistencies instantly, you can pinpoint differences in layout, content, and alignment so you can quickly fix the problem. Visual tests can be automatically run alongside functional tests, reducing your overall testing time.

With mobile app distribution, you can distribute any Android or iOS app version to the right beta user so they can quickly test builds and provide feedback. By leveraging these user insights, you can get the feedback you need to enhance app performance and user satisfaction.



5x

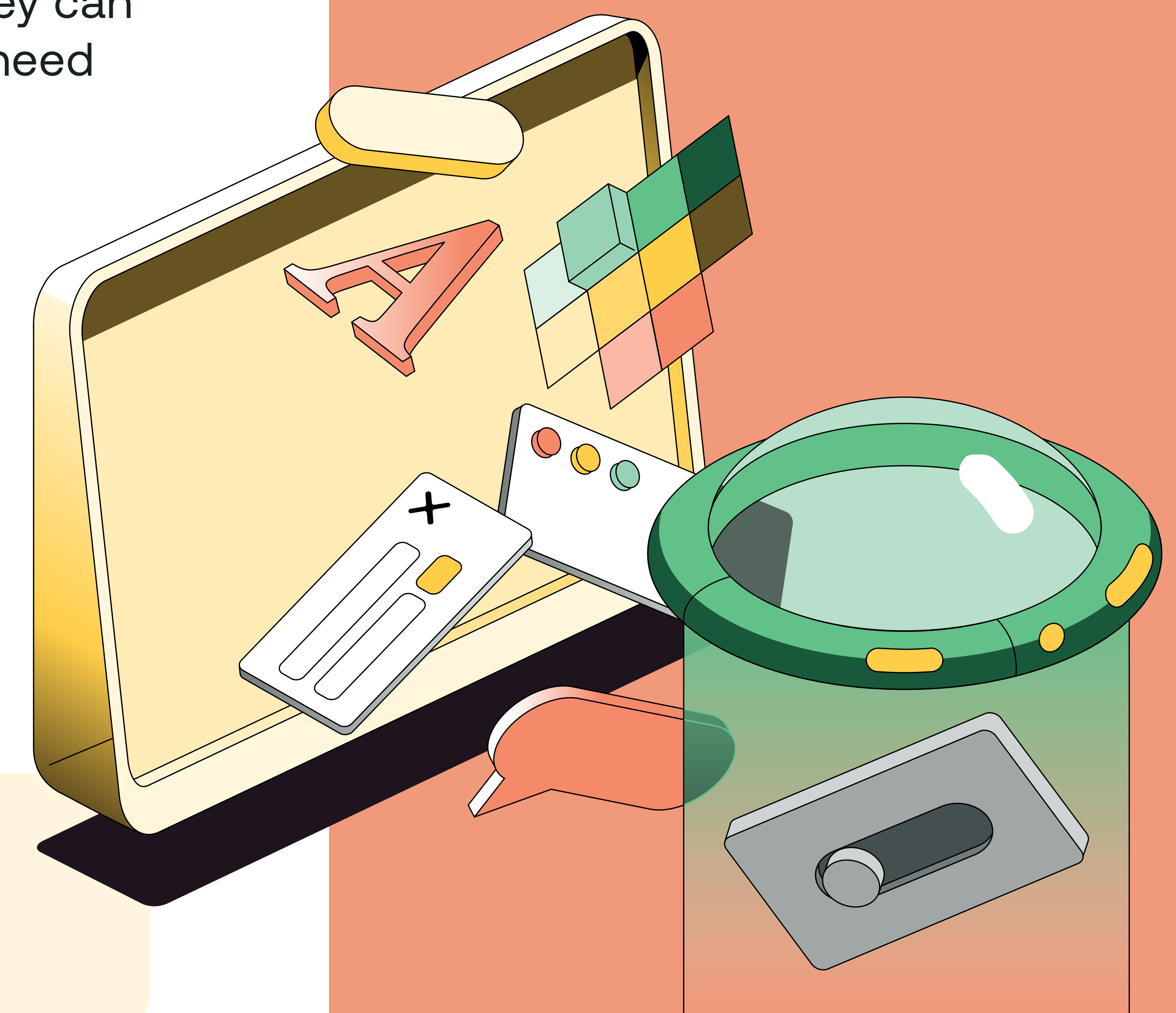
Productivity increase with mobile app distribution¹²



75%

Increase in testing speed with visual testing¹³

*“Our productivity has gone **up by 5X** since we started using [Mobile App Distribution].”*
— **GROUPON**



¹² Sauce Labs, Groupon Case Study.

¹³ Sauce Labs, Lightbox Case Study.



Increase crash identification with error reporting

Continuous quality allows developers to improve their code in the moment as it's being developed instead of later on. But continuous quality doesn't end once you ship. Unintentional issues, updates to operating systems or integrations, unexpected interactions with other tools, and a host of other issues can all lead to errors that you'll only discover once the product is in the hands of users.

With automated error reporting, enterprises can increase speed by cutting their crash resolution time in half.¹⁴ The right automated test platform allows you to identify, monitor, and report errors and crashes so you can pinpoint problems and update code sooner.

Reduce customer churn

Uncover and fix application-breaking crashes or issues before your users find them, reducing the risk that they switch to a competitor.

Capture critical events

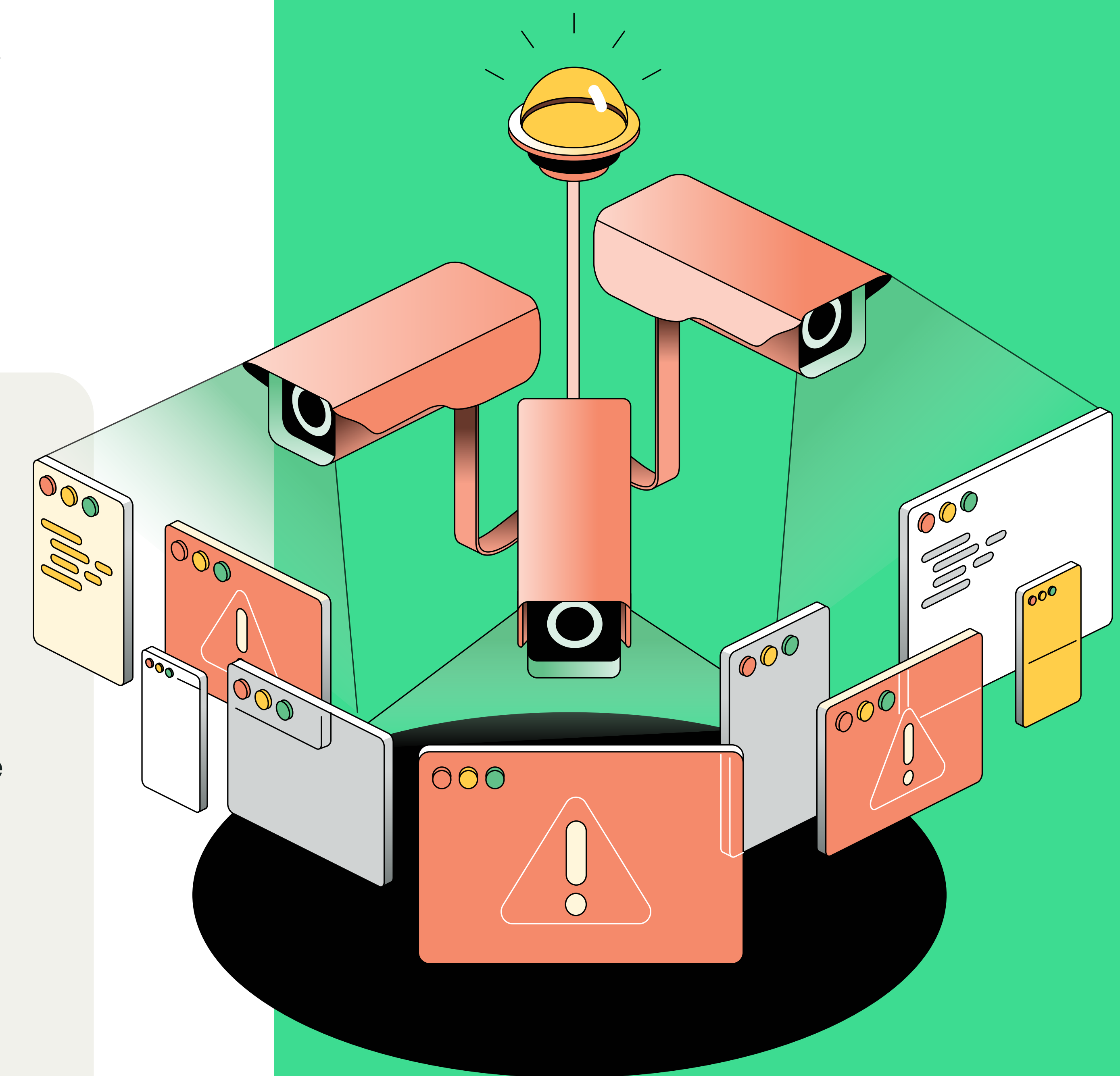
Separate one-off events from widespread issues so you can allocate resources appropriately.

Identify trends

Analyze your error reporting data to discover any quality or testing trends that may impact your product delivery velocity.

Uncover root causes

Quickly discover the root cause of the issue so you can solve the problem permanently.



¹⁴ Sauce Labs, Crash and Error Reporting

The Case For Continuous Quality: Real-World Examples

By automating testing, leveraging visual testing, and incorporating automated error and crash reporting, leading organizations have been able to use a continuous quality approach to reduce testing bottlenecks, bring quality products to market faster, and spend more time focusing on innovation instead of remediation.

Examples of leading enterprises leveraging Sauce Labs to achieve continuous quality:



The digital content arm of Verizon integrated testing into its CI/CD pipeline to save more than 4,500 hours per year, freeing up that time to innovate new solutions.

[READ THE STORY -->](#)



This rental management startup now runs eight parallel test threads in just 45 minutes, down from three hours, allowing its team to identify and fix bugs faster.

[READ THE STORY →](#)



Developers at this real estate technology platform reduced their testing time by 75% while increasing the visibility and consistency of their codebase.

[READ THE STORY →](#)



This financial data and analytics platform leverages automated crash monitoring and alerting to improve its time to diagnose and fix issues.

[READ THE STORY →](#)

These top enterprises and thousands of others like them rely on Sauce Labs to provide the single-platform approach required to streamline test automation, run thousands of parallel tests, and catch bugs long before they ever reach production. By using Sauce Labs to power their continuous quality testing strategy, their developers leverage the only end-to-end solution on the market to spend more time writing code so they can create better products, happier users, and a healthier bottom line.

Ready to learn more?

[REQUEST A DEMO WITH OUR TESTING EXPERTS →](#)



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About Sauce Labs

Sauce Labs is the leading cloud-hosted platform for automated testing of web and mobile applications, enabling fast delivery of high-quality software across the development lifecycle. Founded by the creators of Selenium, Sauce Labs has been the testing leader for over 15 years and now runs over 1 billion tests annually. Trusted by Fortune 500 companies like Toyota, Walmart, Verizon, Gannett, and Fidelity Investments, its scalable, secure platform supports testing across thousands of operating systems, browsers, and devices while meeting the highest compliance standards.

hi@saucelabs.com

www.saucelabs.com