Topics

The Forrester Wave™: Continuous Automation Testing Platforms, Q4 2022

The 15 Providers That Matter Most And How They Stack Up

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Diego Lo Giudice

with Chris Gardner, Andrew Cornwall, Angela Lozada, Kara Hartig

Summary

In our 26-criterion evaluation of continuous automation testing (CAT) platform providers, we identified the 15 most significant ones — AccelQ, Applitools, Copado, Digital.ai, IBM, Idera, Keysight Technologies (Eggplant), Leapwork, Micro Focus, Parasoft, Perforce Software, Sauce Labs, SmartBear Software, Tricentis, and UiPath — and researched, analyzed, and scored them. This report shows how each provider measures up and helps development and testing professionals select the right one for their needs.

Test Automation Converges In Collaborative Platforms With Lots Of Intelligence

As customers continue their digital journeys and accelerate the building and deployment of modern applications, quality becomes paramount for all aspects of the software development lifecycle. Automation of the different types of testing, with functional at the core, becomes the norm. At the same time, test automation has become more complex, while both technical and nontechnical testers must work collaboratively in teams with developers and other testers and with business analysts in an automated fashion. This has shifted customer needs from best-of-breed testing tools a few years back to suites in the past two years and now (and in the future) platforms. Platforms need to offer as many test automation capabilities in one place as possible, either natively or integrated.

As a result of these trends, CAT platform customers should look for providers that offer, besides the typical out-of-the-box (OOTB) features that we've evaluated over the years, functionality that:

- **Offers smart testing capabilities.** In the past 12 to 18 months, vendors have made increasing progress in infusing AI and especially ML to augment testing intelligence. Infusion of AI is all over testing: from infusing natural language processing (NLP) in testing domain-specific languages and model-based testing to smartly executing tests based on change, optimizing
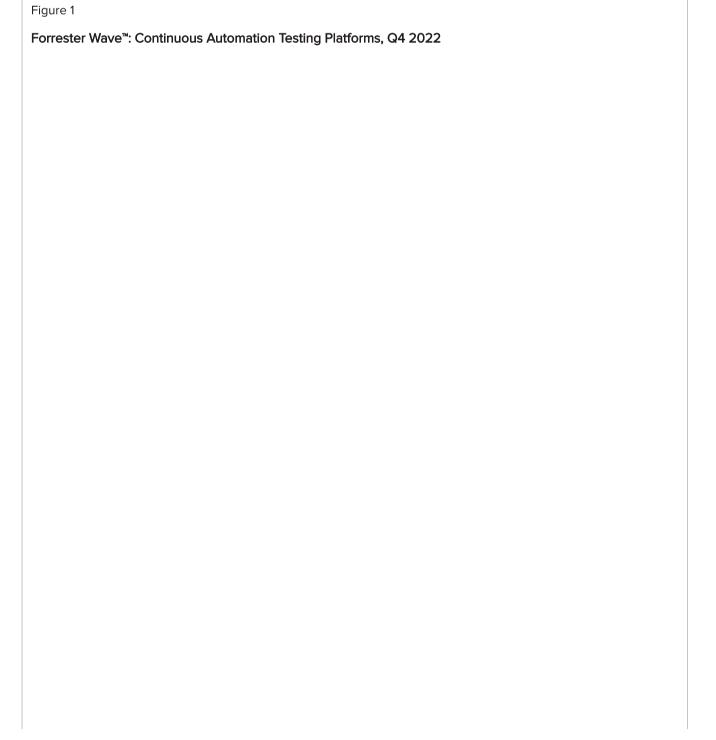
testers such as AI TuringBots. Modern continuous automation platforms have to enable tight collaboration across all inhabitants of the village. CAT platforms must allow important test information to flow among inhabitants to share and exchange. All testers must be enabled to easily combine different types of testing and automate end-to-end.

- **Gives testers a consistent, uniform testing experience.** The various testing personas need to have a uniform testing experience — not one that resembles entering and exiting from different test tools. If professionals wear different persona hats, they should get a consistent and smooth experience as they navigate through all testing (e.g., UI-led, API-led, process-led) that they want to design and execute.

Evaluation Summary

The Forrester Wave™ evaluation highlights Leaders, Strong Performers, Contenders, and Challengers. It's an assessment of the top vendors in the market; it doesn't represent the entire vendor landscape. You'll find more information about this market in our report on The Continuous Automation Testing Platforms Landscape, Q3 2022.

We intend this evaluation to be a starting point only and encourage clients to view product evaluations and adapt criteria weightings using the Excel-based vendor comparison tool (see Figures 1 and 2). Click the link at the beginning of this report on Forrester.com to download the tool.

Figure 1

Forrester Wave™: Continuous Automation Testing Platforms, Q4 2022

Topics

Stronger current offering

ACCELQ •   • Micro Focus

Keysight Technologies •   Parasoft •

Perforce Software •   • Tricentis

Copado •   • Applitools

UiPath •   • IBM

SmartBear Software   Leapwork

• Digital.ai

Idera •

• Sauce Labs

Weaker current offering

Weaker strategy ————————► Stronger strategy

Market presence

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Figure 2

Forrester Wave™: Continuous Automation Testing Platforms Scorecard, Q4 2022

Topics

Topics

	Forrester's weighting							
Operating environments	10%	5.00	4.32	3.00	2.34	2.32	1.00	4.32	2.32
Test authoring and automation	10%	3.70	2.80	1.90	2.50	2.30	3.00	4.20	3.10
API test design and automation	10%	4.00	2.00	2.00	1.00	4.00	1.00	4.00	2.00
Shift-left performance testing and convergence	10%	3.00	1.00	1.00	3.00	5.00	1.00	3.00	1.00
Automation execution/ continuous testing	10%	5.00	3.00	3.00	3.00	3.00	1.00	5.00	3.00
Enterprise business testing	10%	4.20	3.00	5.00	1.00	1.80	3.00	1.80	3.80
Testing journey	15%	5.00	3.00	4.00	3.00	2.00	1.00	5.00	5.00
Test management	5%	5.00	1.00	3.00	1.00	3.00	3.00	3.00	1.00
Test maintenance and self-healing	10%	5.00	5.00	3.00	1.00	3.00	1.00	3.00	3.00
Reporting, analytics, and quality insights	10%	3.00	5.00	5.00	3.00	3.00	3.00	5.00	3.00
Strategy	50%	3.40	3.10	2.80	2.00	4.00	1.70	3.90	3.80
Product vision	20%	5.00	3.00	3.00	3.00	3.00	1.00	5.00	5.00
Execution roadmap	20%	3.00	3.00	3.00	1.00	5.00	1.00	5.00	3.00
Market approach	25%	3.00	5.00	3.00	1.00	3.00	1.00	3.00	5.00
Supporting products and services	25%	3.00	1.00	3.00	3.00	5.00	3.00	3.00	3.00
Partner ecosystem	5%	3.00	5.00	1.00	3.00	3.00	3.00	3.00	1.00
Commercial model	5%	3.00	3.00	1.00	1.00	5.00	3.00	5.00	3.00
Market presence	0%	1.00	1.00	1.00	1.00	5.00	4.00	3.00	1.00
Revenue	50%	1.00	1.00	1.00	1.00	5.00	3.00	3.00	1.00
Number of customers	50%	1.00	1.00	1.00	1.00	5.00	5.00	3.00	1.00

	Forrester's weighting	Micro Focus	Parasoft	Perforce Software	Sauce Labs	SmartBear Software	Tricentis	UiPath
Current offering	50%	4.25	3.93	3.43	1.49	2.60	3.52	2.83
Operating environments	10%	4.34	3.00	3.00	3.00	3.00	3.66	3.00
Test authoring and automation	10%	5.00	3.00	3.80	1.85	1.45	3.50	2.50
API test design and automation	10%	5.00	4.00	3.00	3.00	4.00	5.00	4.00
Shift-left performance testing and convergence	10%	3.00	5.00	5.00	1.00	3.00	3.00	1.00
Automation execution/ continuous testing	10%	3.00	5.00	5.00	1.00	3.00	3.00	3.00
Enterprise business testing	10%	4.20	1.80	1.00	1.00	1.00	5.00	3.80
Testing journey	15%	5.00	4.00	2.00	1.00	2.00	3.00	3.00
Test management	5%	5.00	3.00	1.00	1.00	3.00	3.00	5.00
Test maintenance and self-healing	10%	5.00	5.00	5.00	1.00	3.00	3.00	3.00
Reporting, analytics, and quality insights	10%	3.00	5.00	5.00	1.00	3.00	3.00	1.00
Strategy	50%	3.90	4.60	3.10	2.10	2.70	3.90	3.10
Product vision	20%	5.00	5.00	3.00	1.00	3.00	5.00	1.00
Execution roadmap	20%	5.00	3.00	3.00	3.00	3.00	5.00	5.00
Market approach	25%	1.00	5.00	1.00	3.00	3.00	3.00	3.00
Supporting products and services	25%	5.00	5.00	5.00	1.00	1.00	3.00	3.00
Partner ecosystem	5%	5.00	5.00	3.00	3.00	5.00	5.00	3.00
Commercial model	5%	3.00	5.00	5.00	3.00	5.00	3.00	5.00

Software, Tricentis, and UiPath (see Figure 3).

Figure 3

Evaluated Vendors And Product Information

Vendor	Product evaluated	Product version evaluated
ACCELQ	ACCELQ	6
Applitools	Applitools Ultrafast Test Cloud (Applitools Eyes, Ultrafast Grid, Native Mobile Grid)	10.7
Copado	Copado Robotic Testing	2.16
Digital.ai	Digital.ai Continuous Testing	22.8
IBM	Rational Test	10.2.3
Idera (Ranorex and Xray)	Ranorex DesignWise, Ranorex Studio, Xray	Ranorex DesignWise Cloud v7.21.22, Ranorex Studio v10.3, Xray Cloud v1.1.73-3.002.003, Xray Server/DC v6.2.6
Keysight Technologies (Eggplant)	Digital Automation Intelligence (DAI), Eggplant Functional (EPF), Real Customer Insights (RCI), Monitoring Insights (MI), Eggplant Performance, Eggplant Gateway	DAI 6.2.1, EPF 22.2.0, Eggplant Performance 9.4.2, RCI Cloud 2022-Q4, MI Cloud 2022-Q4, Eggplant Gateway 6.0
Leapwork	Leapwork	2022.2 SR2
Micro Focus	UFT Family, ALM Octane, LoadRunner Family	2022
Parasoft	Parasoft SOAtest, Parasoft Virtualize, Parasoft Selenic, Parasoft DTP, Parasoft CTP, Parasoft Jtest	2022.1, 2021.1.2
Perforce Software	BlazeMeter Perfecto Continuous Testing Platform	SaaS platform
Sauce Labs	Continuous Testing Cloud	v2022
SmartBear Software	SmartBear Software	SmartBear TestComplete v15.42, ReadyAPI v3.40.2, BitBar (SaaS), Zephyr Enterprise v7.13, CucumberStudio v3.5.6.0, LoadNinja (SaaS), SwaggerHub (SaaS) On-Premise v2.3.0, Pactflow (SaaS) On-Premise v1.19.2, TestEngine v1.26.2
Tricentis	Tricentis Continuous Testing Platform 2022	
UiPath	UiPath Test Suite	22.10

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Vendor Profiles

Our analysis uncovered the following strengths and weaknesses of individual vendors.

Leaders

- **Parasoft continues its long testing journey with key vertical market focus and more AI.** Parasoft doubles down on infusing AI capabilities into its platform. With a strategy of reaching out to business testers, two new features are low/no-code AI-driven test generation for desktops and browsers and an AI smart test capability that optimizes test execution by reducing the scope of tests required to validate application changes. However, the primary testing persona of the Parasoft platform remains the developer tester. The partnership with the hardware/software testing company Keysight Technologies enables further growth in the technical scientific

performance, and service virtualization. It has undisputed strengths in API testing made easy with AI and integrated with its service virtualization offering. Shift-left performance testing for converged functional and performance testing and its long-time mature analytical reporting are also strong features. Parasoft can rave about its "built here, not acquired" product and innovation approach, which strengthens a consistent experience across all testing types. Parasoft is still not a software-as-a-service (SaaS) business application testing choice, but its customers don't expect it. Organizations from any market can partner with Parasoft, but technical scientific and high-compliance markets will find the ideal platform for their use cases.

- **Micro Focus has consolidated the transition to a comprehensive top-tier CAT platform.** The "shift everywhere" vision of the past several years has made the converged Micro Focus and Hewlett Packard Enterprise (HPE) software testing offering one of the most comprehensive CAT platforms in the market. The broad set of capabilities offers authoring, execution, and management of tests to various testing personas from developers to testing SMEs and business testers. Per the roadmap, the CAT platform will be an integral part of the value stream management (VSM) platform ValueEdge, offering enterprise-, team-, and persona-level quality perspectives in value streams. Micro Focus could do a much better job on the go to market of the newly upgraded products, something that reference clients highlighted too. From codeless to scripting in natural-language-, visual-, and model-based testing, AI has been infused into the capabilities of the platform, offering easier and smarter testing. Omnichannel, mobile, management, and test self-healing are additional strengths. Feedback from clients on achieved functional automation over the past 12 months has both bright and not-so-bright spots. Some reference clients do not know about the new technology, while others are still working on an education program to learn about it. It's "an excellent suite, held back by poor marketing," a client said. Another said, "They would benefit from additional R&D spend and time promoting the benefits of the suite of tools to testers as well as the C-level." Both current Micro Focus and older HPE clients should consider the Micro Focus CAT platform for enterprise modern application development and digital acceleration. In August 2022, OpenText announced the acquisition of Micro Focus.

- **Keysight and Eggplant are together forever: an ambitious journey in the future of testing.** Since our last wave, the global-giant hardware testing organization Keysight Technologies acquired Eggplant. The combination has huge potential for market penetration in the metaverse, IoT, industrial, automotive, and other physical and digital markets. The newly joint vision of Keysight and Eggplant will become the platform for enterprisewide automation, test, and assurance of digital systems and products. Eggplant was one of the first testing vendors to build an AI test authoring system with an AI-infused domain specification language and engine from the ground up that offers one of the most powerful image-based/computer-vision and model-based testing platforms. Under the ownership of Keysight, it developed a business process and robotic process automation (RPA) testing and development tool and improved various capabilities to execute on the vision. While reference clients recognize the strong, varied, and comprehensive capabilities of the platform, many claim they have not yet leveraged all of these capabilities. Like many other testing vendors introducing innovation, Keysight and Eggplant need to improve the onboarding and training of these clients besides explaining the additional benefits they can get in leveraging the new advanced features. SaaS business packaged application testing was one of the weakest areas among Keysight clients

that directly relate to the components of an application and business processes. ACCELQ's AI-infused vision powered by pseudo natural language understanding is differentiating. AI in ACCELQ's strategy enhances the optimization of both tests to be created and tests to be executed, all based on change or user requirements. Another relevant differentiation for ACCELQ is its impressive logo list of customer brands with important names on the advisory board. While the Universe visual graphic model can present the behavior flow of applications and tests and their components easily, it is not so easy to graphically identify and visualize a business process to test without further pointing and clicking. ACCELQ's offering has been cloud-native since its inception, providing a strong SaaS experience, varied omnichannel and its own mobile testing, strong third-party record and replay that can be combined with other types of testing, and superior testing of SaaS business apps with strong success in Salesforce. The Universe environment enables collaboration and a consistent test experience. Many reference clients recognized the infusion of AI and ML in testing as one of the most valuable parts of the platform. On the other hand, ACCELQ is not the ideal environment for developer testers. Although tests can be coded leveraging open source frameworks, they are far from offering what a pure dev-tester tool can. ACCELQ is a strong enterprise testing choice, especially for Salesforce customers.

- **Tricentis adds AI testing to its comprehensive, heterogeneous end-to-end platform.** Buoyed by its commercial Tosca partnership with SAP, Tricentis holds the largest market base for testing SAP solutions with the objective of increasingly expanding to other SaaS business packages. The growing focus of Tosca is to extend appeal beyond business testers. Tricentis' strategy is to be the go-to testing partner for functional quality, performance, and security. Among other important acquisitions like the performance testing engineering platform NeoLoad, Tricentis acquired Testim.io, an AI-infused testing tool vendor, to compete in the midsize-company market and offer test automation to dev testers and DevOps teams. The litmus test of its acquisition strategy will be to successfully create technical synergy from the acquisitions, while advancing a highly collaborative environment with a consistent tester experience. Tricentis was one of few vendors that demonstrated a true end-to-end test of a customer journey in Salesforce, SAP, and omnichannel including mobile. Strengths of its product offerings are omnichannel capabilities that are quite broad and getting broader, multiple types of testing in one platform, and strong SaaS testing. As one reference client put it, "Most of our automated test cases are over either SAP or Salesforce applications, and Tosca supports both technologies very well." Reference clients complained about custom reporting weaknesses, high costs, and inability to leverage all its capabilities. Tosca was conceived on .NET technology, not cloud, which it resolved in a new release in beta. Large-scale enterprises will find Tricentis to be a formidable testing platform that addresses growing scale and the transition from packaged to custom.

Strong Performers

- **IBM is a constant in this highly dynamic market but needs more to shine.** IBM, through a strong HCL Technologies partnership, continues its aggressive pursuit of the enterprise DevOps, cloud, and VSM market. IBM continues its rearchitecting and reengineering cloud strategy around integrated DevOps automation. Its goal is to fully automate quality assessment with test identification and creation from the moment of design. IBM has a long-term, detailed, and well-articulated execution roadmap that, over the next 12 to 18 months, extends its transition of

the broader VSM offering, and with a click, you can go from testing to VSM. The test authoring environment is not in the cloud yet, so it's not SaaS-based. While this doesn't limit testing of cloud applications, it limits cloud API testing. Other areas for improvement include the lack of comprehensive OOTB SaaS enterprise applications testing. IBM is a strong fit for firms looking for complex scale testing for large enterprises and testing for everything from heterogeneous legacy systems to modern applications.

- **Leapwork's new no-code/low-code testing platform has big ambitions but ambiguity.** Founded in June 2015, Leapwork is a newcomer that has already become one of the top CAT platform vendors. With a strategy of offering a true no-code/low-code test tool for business testers, its vision, execution roadmap, and planned revenue growth are quite ambitious. Its execution roadmap and market approach scored high, with impressive plans around the next releases of Apollo (in 2023), which promises to address many current weaknesses, and Athena (2024 to 2025), which plans to provide a new pseudo-natural-language-to-model transformer. Leapwork has $72 million in funding to execute on the presented execution roadmap. Its current partnership program is making its first baby steps. Leapwork will have to make a clear call on whether it wants to be a CAT platform or an RPA one. Leapwork has leading capabilities in visual testing (which Apollo will further enhance), testing of SaaS enterprise business applications, and business process and RPA testing capabilities. Leapwork excels in end-to-end customer journey testing with a superior collaborative and consistent testing experience across roles and teams. Too bad it does so only over a few types of testing. With an extremely competitive testing market made of both aggressive mature and new players, Leapwork's Apollo release will have to address current weaknesses of mobile device testing being totally partner-driven, developer scripting only for test extensions, API test creation and execution, and the lack of performance benchmarking and test management capabilities. Firms willing to try a new player and center a testing strategy around business testers and packaged apps should consider Leapwork.

- **Perforce complements its testing with Blazemeter, but success depends on integration.** Since our last evaluation, Perforce has expanded its test offering, which had already included Perfecto Mobile and codeless TestCraft, with the acquisition of Blazemeter. Perforce's vision is one platform that brings developers and testers together, automating end-to-end user journey testing and increasing overall testing, along with rich reporting and analytics insights. This integration across products is on the execution roadmap, which includes use of AI not just for test creation and visual testing but also for performance testing (e.g., autodetection of load-generation needs). Clients will benefit from this integration of disparate components only if Perforce can quickly merge its areas of excellence. The union of these complementary product offerings supports a strong common theme based on the cloud: mobile testing, performance engineering, API testing, test data management, and mock services. Data analytics and reporting are also strong capabilities. The main challenge with integration into one platform is the existence of two different UIs, giving testers an inconsistent experience when moving from one type of testing to another. Mobile capabilities lack battery consumption, animation, and single-user performance. The SaaS enterprise business application testing scored low for packaged application testing and RPA/business process testing. Once integration occurs, enterprise clients will have a full-fledged end-to-end testing platform. Perforce is a good fit for firms that focus on developer testers and can manage two

resolve their inefficiencies in automating look-and-feel UI testing. Many testing tool vendors partner with Applitools because of this strength. This has accelerated its growth and market presence. Applitools' strategy with Eyes is to enable testing of user experience design with automation. Besides improving Eyes technology, Applitools is expanding its offering and shifting its go-to-market strategy from an "infrastructure service" to a full-blown cloud-based test automation platform. Besides strong visual testing, Applitools has comprehensive self-healing. A reference client said, "Applitools provides the source of truth of your system in the wild." It also offers a high-performing multibrowser and mobile-device cloud testing grid capability that supports automated native-mobile testing across mobile devices without the setup and teardown of an emulator for every test. Applitools does not provide support for voice or audio. Interaction with mobile devices outside the visual realm is limited to what's provided by Appium — if your app makes use of a camera feed or you want to measure battery consumption, you'll need to look elsewhere. API test generation is also lacking, compared with other platforms. Applitools is ideal for organizations with developer coding testing skills and a strong open source development and testing strategy, where web/mobile content precision at scale is a must.

- **Copado has strong testing in its SaaS DevOps platform — not ideal for custom-only.** Copado was born to bring DevOps tooling to the Salesforce platform. Now, through a couple acquisitions and engineering efforts, it has transitioned into a complete DevOps platform for SaaS applications, going beyond Salesforce with testing at the center. Bringing strong DevOps capabilities and test automation to the business packaged application world is a powerful strategy but less attractive for enterprises with lots of custom development too. No enterprise has just business packaged apps in its landscape. Copado's product roadmap has diverse and attractive elements such as autonomous testing, intent-based authoring, and multirobot orchestration but provided few details of how it will achieve them. On the other hand, these seem to be seed ideas for a roadmap that shows innovation intent through 2025, beyond what others evaluated shared. Copado scored low on partner ecosystems by not showing any type of differentiating strategy or relevant partnerships. Copado is strong in SaaS enterprise testing with its packaged application testing capabilities and business process and RPA testing. Its advanced reporting and analytics are also strengths. Keyword language is intuitive and easy to use, but business testers would also benefit from a model-based testing environment. Given its focus on platform testing, Copado is not ideal for developer testers doing more custom app development. Also missing are performance testing capabilities that support converged functional and performance (benchmarking) testing. Copado is a strong choice for enterprises doing extensive SaaS business applications testing.

- **UiPath tests RPA and apps at scale, but its vision of a center of automation does not fly.** UiPath is one of the leading RPA automation vendors in the market. A few years ago, it decided to include application testing capabilities in its product offering, leveraging some of its existing automation capabilities and Studio integrated development environment for functional and RPA test automation. It also built a ground-up test management capability and established some partnerships in the testing space. UiPath is betting that its clients will leverage its platform for testing in addition to core RPA. That makes sense: It is a white space that only a few can really address and a strategy that has helped UiPath ramp testing revenue quickly. However, its vision that clients will opt for an enterprise automation center of excellence,

A reference client reported the need to build most reports manually from log events, and another said that the reporting dashboard provides just the basic info needed. UiPath has some catch-up work to do to become a full-fledged CAT platform, but it has the muscle and resources to do this. UiPath best suits its market of RPA clients that need to test their applications and RPA solutions.

- **SmartBear offers a strong set of tools but an inconsistent experience across them.** As SmartBear Software continues to rationalize its large acquisition portfolio, it is expanding and strengthening its executive and product management team. SmartBear has described an expanded mission to serve multiple roles beyond testers and QA engineers such as business analysts, continuous integration/continuous delivery automation engineers, and others who address quality. It has executives in new key roles, but it also struggles with management churn, generating an inconsistent feeling of vision and strategy continuity after many pivots. The strategy to meet developers and testers where they are for everything quality-related is a noble one. But the execution roadmap lacks details on how to do that and doesn't reflect the execution speed needed to turn its comprehensive best-of-breed tools into one consistent CAT platform. Its supporting products and services in its overall strategy were also below par. SmartBear enables packaged application testing but is not completely OOTB. This does not make it a leading solution for packaged app testing, but one that can be leveraged when packaged business app testing is not the primary focus. It has a continued strong commitment to open source communities, superior API test creation and execution extended with contract testing, and strong test management. Other weak areas are the new AI-infused visual testing, model-based testing, and disparate UI across testing tools. SmartBear offers a bit of everything, addressing a broad market, and is an easy choice for developers and development teams because all it takes to buy is a credit card.

Contenders

- **Digital.ai is an end-to-end DevOps, VSM, and testing platform overfocused on mobile.** Digital.ai's vision is for a comprehensive VSM capability with critical-mass coverage of underlying delivery solutions. These solutions support the day-to-day execution and improvement of agile and DevOps processes, of which QA and testing are a critical part. The vision is sound, but the execution of the CAT platform roadmap so far has been slower than expected. In fact, many differentiating CAT platform capabilities are planned for future releases, with some coming soon but not soon enough to be included in this evaluation. The rest of the execution roadmap offered few convincing details, but its almost-exclusive focus on mobile-first and mobile-only (a reflection of its acquisition of Experitest) is problematic if you don't mainly focus on mobile. The CAT capabilities integrated in the overall product offering have strengths in mobile and mobile web testing at scale but fall short in omnichannel testing for agile and DevOps teams that must test modernized applications in heterogeneous environments including desktop, mainframe, SaaS apps, RPA, and business processes. Test management capabilities are missing but partially supplemented by VSM capabilities. Self-healing is missing but coming (for mobile and web mobile only), and visual testing is currently on the roadmap. It seems to be promising an easy-to-use test creation environment for nontechnical testers. Organizations on an agile, DevOps, and VSM journey should explore this CAT platform.

strategy for enterprises outside gaming. Its strong emphasis on mobile-first and its Backtrace acquisition for error monitoring and reporting seem to overshadow the Autonomiq acquisition and mainly focus on developer testing personas — ideal for a gaming testing strategy but less so for the rest of testing stakeholders. The belief that "if you can test games, you can test anything," is only partially valid. The offering has excellent developer tester and open source consensus and a competitive cloud-based solution with both omnichannel and mobile testing capabilities. The API testing across web and mobile (no SaaS enterprise testing capabilities) is competitive for headless testing. But reference clients scored many product features poorly. Model-based testing is absent likely because it's irrelevant to gaming developers, but business testers need it. The lack of converged shift-left performance testing with functional testing, which is also a key feature for gaming, represents a gap. Sauce Labs is still a strong web and mobile grid testing player. If you are in gaming, go for it: Sauce Labs has begun its effort to conquer the gaming market.

Challengers

- **Idera has best-of-breed tools siloed technically and from a go-to-market standpoint.** Idera's vision, execution roadmap, and go to market were all below par relative to others evaluated. Idera offers a portfolio of best-of-breed tools Ranorex, Xray, and DesignWise versus a true CAT platform with the integrated and collaborative environment for the testing personas business, testing SMEs, and developer testers. Its execution roadmap lacks evidence about how this portfolio of loosely coupled tools will become a real CAT platform in the future. Idera, by the nature of its business, sells its products directly. In countries where it is not present, it relies on a large-scale and mature partner channel with "sell," "implement," and "teach" services. Ranorex is a long-time and quite-successful tool for test automation. Peers mention Ranorex as their test automation partner. But it still only runs on .NET despite allowing testing of apps on many platforms. A promise to go cloud and multiplatform has gone unfulfilled for quite some time. Xray is a good modern test management tool with strong ties to Jira, but the Atlassian market suffers isolation from the rest of the offering. DesignWise, an impressive behavior-driven development (BDD) scripting tool with a nice visual and model-based BDD language, feeds feature files to Ranorex. But the two poorly integrate, and the UIs are completely different. The resulting experience of using them together feels like a waterfall sequential number of steps with short iterations as agile would require. Idera is a good choice for enterprises that have a best-of-breed strategy versus an enterprise-platform one, capabilities to stitch their own test platform together, or strong ties to the Atlassian stack.

Evaluation Overview

We evaluated vendors against 26 criteria, which we grouped into three high-level categories:

- **Current offering.** Each vendor's position on the vertical axis of the Forrester Wave graphic indicates the strength of its current offering. Key criteria for these solutions include the operating environments, test authoring and automation, API test design and automation, shift-left performance testing and convergence, automation execution and continuous testing, enterprise business testing, testing journey, test management, test maintenance and self-healing, reporting, analytics, and quality insights.

Vendor Inclusion Criteria

Forrester included 15 vendors in the assessment: AccelQ, Applitools, Copado, Digital.ai, IBM, Idera, Keysight Technologies, Leapwork, Micro Focus, Parasoft, Perforce Software, Sauce Labs, SmartBear Software, Tricentis, and UiPath. Each of these vendors had:

- **Three of the top-five use cases required by clients.** The vendor's CAT platform had to support an agile-plus-DevOps context with continuous delivery and three of the top-five use cases in [The Continuous Automation Testing Platforms Landscape, Q3 2022](#): multichannel functional test automation, API test automation, shift-left performance testing, test management, and business packaged application testing.

- **The required revenue.** The vendor had at least $10 million in CAT revenue.

- **A presence in CFTA client inquiries and/or in Forrester's analyst radar.** Forrester's continuous functional test automation (CFTA) clients often discussed the vendor and platform in inquiries, or it came up in advisory with testing services vendors. Alternatively, the vendor may, in Forrester's judgment, warrant inclusion or exclusion in this evaluation because of technology trends or market presence.

Supplemental Material

Online Resource

We publish all our Forrester Wave scores and weightings in an Excel file that provides detailed product evaluations and customizable rankings; download this tool by clicking the link at the beginning of this report on Forrester.com. We intend these scores and default weightings to serve only as a starting point and encourage readers to adapt the weightings to fit their individual needs.

The Forrester Wave Methodology

A Forrester Wave is a guide for buyers considering their purchasing options in a technology marketplace. To offer an equitable process for all participants, Forrester follows [The Forrester Wave™ Methodology Guide](#) to evaluate participating vendors.

In our review, we conduct primary research to develop a list of vendors to consider for the evaluation. From that initial pool of vendors, we narrow our final list based on the inclusion criteria. We then gather details of product and strategy through a detailed questionnaire, demos/briefings, and customer reference surveys/interviews. We use those inputs, along with the analyst's experience and expertise in the marketplace, to score vendors, using a relative rating system that compares each vendor against the others in the evaluation.

We include the Forrester Wave publishing date (quarter and year) clearly in the title of each Forrester Wave report. We evaluated the vendors participating in this Forrester Wave using materials they provided to us by September 26, 2022, and did not allow additional information after that point. We encourage readers to evaluate how the market and vendor offerings change over time.

In accordance with [The Forrester Wave™ And New Wave™ Vendor Review Policy](#), Forrester asks vendors to review our findings prior to publishing to check for accuracy. Vendors marked as nonparticipating vendors in the Forrester Wave graphic met our defined inclusion criteria but declined to participate in or contributed only partially to the evaluation. We score these vendors in accordance with [The Forrester Wave™ And The Forrester New Wave™ Nonparticipating And](#)

Topics

Test Automation Converges...   Evaluation Summary   Vendor Offerings   Vendor Profiles   •••