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Unlocking **Agile Testing**
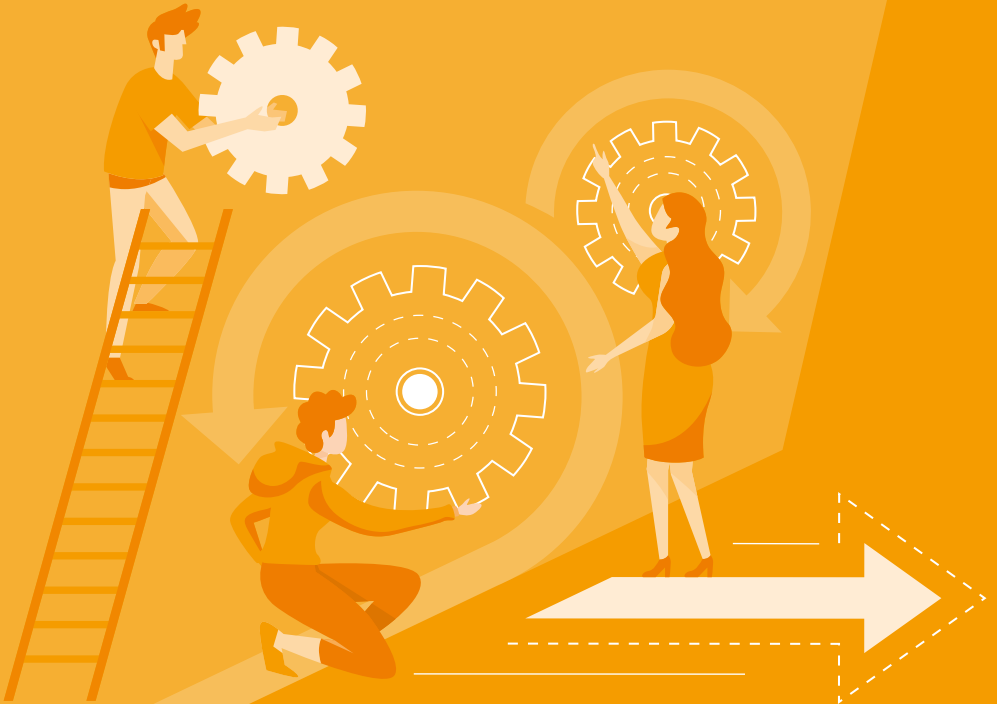
Jira

Content

Introduction

Agile as a competitive advantage

[Harvard Business Review Analytics Services](#) dubbed agile software development as the "competitive advantage for a digital age."

According to the [13th Annual State of Agile report](#), the benefits of adopting agile in testing and throughout the SDLC have undeniable improvements on the quality of software, time to market, project predictability and productivity, cost reduction, and employee satisfaction.

The Promise of Agile Development
According to PwC internal benchmarks, agile software development offers big benefits across multiple areas.

Development Goal	Improvement with Agile
Quality	Defect escapes rates decrease
Time to market	Improves 18%-20%*
Productivity	Improves 14%-95%**
Cost	Reduces costs by 7%-29%
Employee satisfaction	Improves 20%-40%

*Wide range reflects industry variations.
**Wide range reflects differing types of software being built

Source: [PwC, 2014](#)

As teams adopt agile for managing software development, tools like Jira Software provide the foundation for managing projects in an agile way by promoting collaboration, transparency, commitment and flexibility.

Agile emphasizes open collaboration and interaction between team members. When it comes to testing, agile values testing as an integrated part of the SDLC, and testers are encouraged to work alongside developers.

So what does Agile Testing look like and how can we increase agility in our teams?

In this document, we'll explore the advantages of agile testing to meet business goals, the principles of agile testing, and the tools and strategies you can adopt to embrace full testing agility and speed.

"Things are moving so fast and users are so much savvier these days that we need to find ways of not only shortening the time to market, but also creating applications that better fit business needs"

Paul Gartner | Vice President, Software Engineering at National Geographic
Source: Harvard Business Review

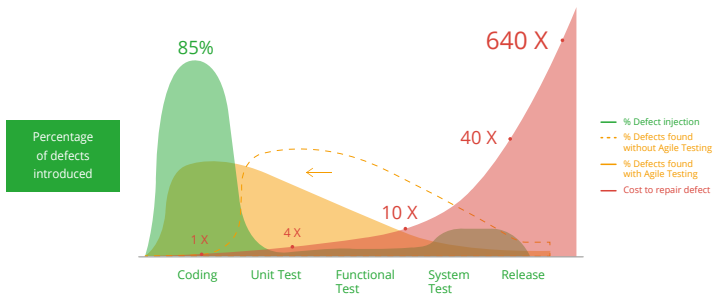Unlocking Agile Testing

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Solving QA challenges

Solving QA challenges with Agile Testing

According to Capers Jones survey for Applied Software Measurement, *"85% of bugs happen at the first stage of the software development life cycle."*

Jones Capers, Applied Software Measurement: Global Analysis of Productivity and Quality.

Traditional models of testing like waterfall, separate development and testing into two steps. First the developers build the features, then the QA team writes and executes test plans.

As the project grows, the amount of work for the QA increases and testers usually struggle to keep up with testing. So what happens? Project owners can choose to test less and release with more chances of bugs, or delay the release. This gives the organization a competitive disadvantage, and increases their chances of costly repairs, since the cost of catching a bug later in the development cycle is 40x the cost of finding it during coding.

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This is where agile testing comes in.

Testing early and throughout development minimizes the cost to repair a defect, consistently alleviating bugs by pushing the product through development stages only when it is working properly.

The goal of an agile development team is to sustainably deliver new features with quality.

In an agile workflow, testing is an integrated part of the team and accelerates software development with higher quality. As a result of this, testers are able to identify bugs sooner and even avoid them from the start, saving time and effort.

In an agile workflow:
· Testing is an integrated part of the team and accelerates software development with higher quality
· Testing happens throughout the whole SDLC
· Testing goes beyond finding bugs
· Its purpose is to build the right product right from the start by having ongoing conversations between development and QA
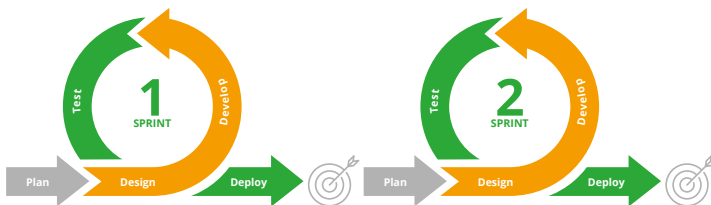
The road to
Agile Testing

The road to Agile Testing

The key to more agility starts with having people at the center of your process and providing them the means to work together effectively. It's equally as important to allow them to learn and adapt, both to their needs and to the needs of customers.

Being agile requires transparency, continuous feedback, continuous improvement, and technical excellence and ownership, to make sure the team works effectively to produce high quality products.

In order to have a successful agile process, you need to have these processes/mindsets in place:

Successfully scaling agile includes everyone

Having an agile transformation as an executive-led initiative is an important start, but the agile mindset extends to everyone. Developers, testers, marketers and business intelligence, all need to embrace an agile mindset for it to truly work.

Testing throughout over testing at the end

Traditional waterfall based teams tend to perform testing only at the end, after coding/implementation. Testers need to be involved in discussing/reviewing the requirements and other issues targeted for the release or sprint. By having ongoing continuous discussions with the team, testers increase the shared knowledge by providing valuable feedback.

Enabling automated testing and continuous integration

To save time and effort on testing, it's important to implement test automation and continuous integration via a centralized agile platform. This is where a test management tool that supports test automation is highly important, to have a single source of truth for both manual and test automation efforts.

Embracing a tool for communication and collaboration

Agile teams need tools that support clear and constant collaboration between developers and testers. [Jira Software](#) is a tool where developers and testers all work together. This makes quality a part of development and doesn't just leave the testing to the testers. For example: A developer can review tests or testers can ask for some clarification on user stories.

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Unlock the power of Agile with Jira

Unlock the power of Agile with Jira

Jira is a project management tool that allows teams to capture and organize issues, assign work and follow team activity for seamless collaboration. Jira supports any type of agile methodology, including Scrum, Kanban or your own unique mix.

Jira provides the foundation for managing software projects in an agile way by promoting collaboration, transparency, estimation, commitment and flexibility.

Jira offers a unique set of features and capabilities that enable agile development:

· Ability to create test-related issues as new issue types
· Link between issues (e.g. bugs and requirements)
· Automatic and manual issue assignment
· Integration with source code repository
· Search for and within issues
· Issue comments and attachments
· Agile reports for improved retrospectives
· Ability to import data from other systems

As you can see, Jira is a powerful tool that supports agile development, but on it's own, it doesn't support agile testing.

This is where Xray comes in.

XRAY

Complete your Agile toolset with Xray

Xray is a test management app native to Jira

4.5 million active users across 5,000 customers use Xray to manage over 100 million test cases every month. Almost 70% of our customers are already agile or are undergoing an agile transformation by moving out of traditional waterfall scenarios.

Xray uses Jira issues to represent most of the testing related entities.

Because Xray is a Jira native app, it embraces agile values and principles and keeps software development and testing integrated. Xray helps teams manage their testing activities, including test planning, authoring, execution, tracking and reporting, all in one place.
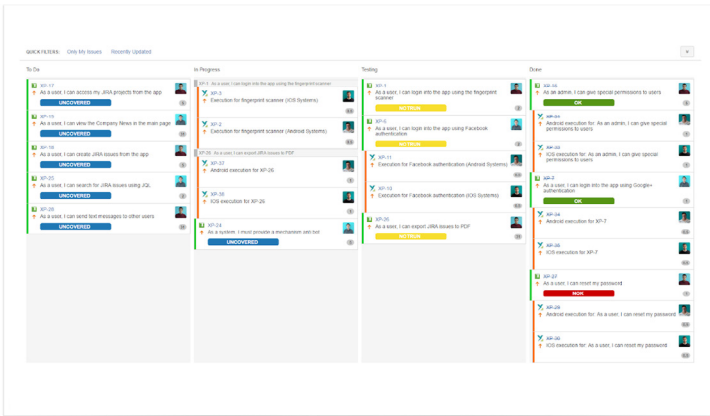
How Xray enables Agility in 5 points

👁 Complete visibility

With Xray, you can see what is happening on your existing agile ([Scrum/Kanban](#)) Boards or on your stories, there's no need to ask other team members what they're working on.
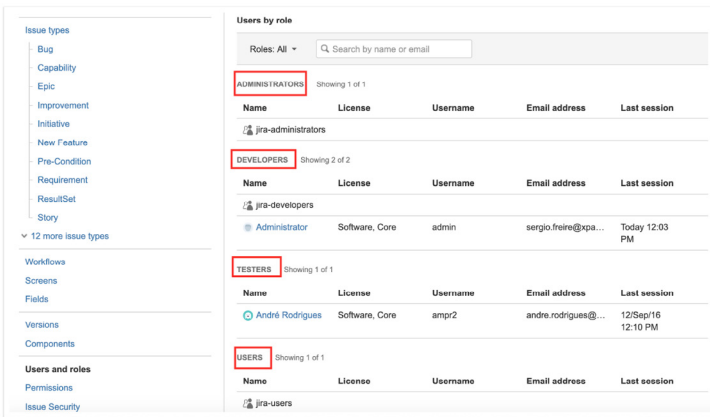
Xray also provides real time testing and coverage feedback on the issues you're working on (e.g. Stories, Epics, Tests) providing you with clear insights into quality. Users can quickly analyze test results or evaluate how a Story is on different versions.

🖧 Collaboration and communication within the team

Your QA tool should not be isolated from the rest of the development ecosystem, that's why Xray integrates with the software development ecosystem (Jira).Testers can clarify PBI's (product backlog items), assess risks and provide better testing time estimates. With a unified tool for testing and development, the activities are blended and team members work together towards the same goals.

⚙️ Increased efficiency with Test Automation

Automation will [save testers 20-40% of their time](#) spent on catching errors. With Xray, once automated tests are properly set-up with integrations like Cucumber, they can run again and again. This allows products to glide through testing. With this solution, teams can focus on what's important: fixing those bugs and consistently delivering quality solutions to their customers.

BDD is an approach where technical and non-technical users collaborate together to have a clear understanding of requirements and their acceptance criteria by writing concrete usage examples/scenarios in natural language that can be later on executed by an automation engine.

[Xray has native support for Cucumber and other Gherkin](#) based frameworks (e.g. Behave, SpecFlow, Calabash), allowing customers to collaborate with the product/development team by writing and reviewing Scenarios.
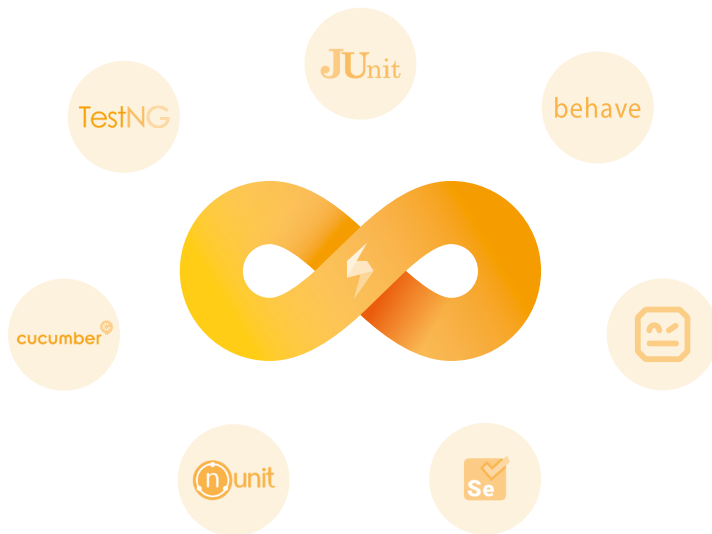
🔒 Encourages team responsibility for overall quality

The best way to make sure your entire team feels responsible for quality is to close the gap between testing and development. Team members work together in order to achieve common goals: having features/issues implemented the right way and working as expected.

To make quality a natural step, Xray provides coverage analysis capability, allowing anyone to assess real-time information on whether a user story is covered with Test cases for example. On agile boards, where team members manage and track their progress, everyone can see the status of tests and contribute to their completion.
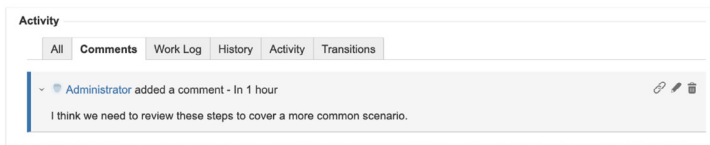
Adaptable to change

You can adapt Xray to the process your team finds most useful and make them more agile. Use your team's feedback to embrace changes. Add fields, customize screens, and take advantage of the many benefits provided by Jira. **Use one or more Test Plans per sprint** to track independently the progress of different subset of Tests; you can also have Test Execution on a per sprint level, to manage their work as any other task.

Conclusion

Focus on quality from start to finish

An agile transformation first and foremost starts with people. When your team embraces an agile mindset, is open to change, and values feedback, then you are on the right track.

Project management tools like Jira and Xray empower each member of your team in their tasks, encourage open communication, and promote cross-collaboration.

Together, Jira and Xray close the gap between testing and development by merging activities in one tool. This collaboration accelerates agile software development while testing early and often, significantly reducing the risk of software failure.

The result is a focus on quality from start to finish.

Making the move to agile doesn't have to be intimidating. Start by embracing the principles of agile, encourage open communication, and finally, trust tools like Xray and Jira to support you.

Xray is the leading quality assurance and test management app for Jira. More than 4.5 million testers, developers and QA managers trust Xray to manage 100+ million test cases each month. Xray is a mission-critical tool at over 5,000 companies in 65 countries, including 137 of the Global 500 like BMW, Samsung and IBM.

[Try Xray Test Management](#)

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