



Agile Test Automation – ICAgile Certification



- Discover how to implement test automation as stories are implemented
- Confidently deliver shippable product increments each sprint using automation
- Understand how to collaborate with business analysts, programmers, and customers to integrate automation into your team's workflow
- Work without the need of separate, independent test automation teams
- Explore how complex non-functional testing can be automated in a sprint
- Discover how to implement test automation as stories are implemented
- Confidently deliver shippable product increments each sprint using automation
- Understand how to collaborate with business analysts, programmers, and customers to integrate automation into your team's workflow
- Work without the need of separate, independent test automation teams
- Explore how complex non-functional testing can be automated in a sprint
- Discover how tools such as mind mappers, recorders, and note takers generate defensible evidence of regulatory compliant testing

Most agile teams deliver potentially shippable software at the end of each iteration (one to four weeks), but some agile teams even ship working software every day. Regression confidence can be achieved with the help of automated tests, which many teams struggle with. This class will teach automation techniques to improve regression testing, story and feature testing, and enhancement of exploratory testing. Test Driven Development techniques, precise test and tool selection, appropriate automation design, and team collaboration can be combined to fully integrate testing into Agile delivery teams and provide the efficiency necessary for project success.

Explore the many ways automation supports agile testing activities. Test automation

purpose, theory, and principles are reviewed. We look at how test automation is implemented in diverse organizations. The course presents many types of automation illustrated with example test descriptions, source code samples, and example test scripts.

This course will provide real-world, vendor-neutral examples of Agile Test Automation approaches and tools. Examples of automated tests for Test Driven Development (TDD), Acceptance Test Driven Development (ATDD), and Behavior Driven Development (BDD) will be given.

Who Should Attend

This course is for agile team members involved in testing, programming, business analysis, software construction, and deployment. Product owners, managers, and other development professionals will gain important insights into the benefits and trade-offs related to agile test automation. No specific prerequisites are assumed, and any technical concepts will be explained; however, attendees are expected to have some software and agile knowledge or experience.

ICAgile Certification

Successful attendees of our Agile Test Automation—ICAgile course are awarded the ICAgile Certified Professional in Agile Test Automation (ICP-ATA). Additionally, the certified attendees will be listed on the ICAgile website, indicating their designation. SQE Training recommends *Fundamentals of Agile Certification—ICAgile*^[1] and *Agile Tester Certification*^[2] for those seeking the ICP-ATA designation. *The ICAgile certification fee is included with your registration for your convenience.*

About the ICAgile

The International Consortium for Agile's goal is to foster thinking and learning around agile methods, skills, and tools. The ICAgile, working with experts and organizations across agile development specialties, has captured specific learning objectives for the different agile development paths and put them on the learning roadmap. For more information visit www.icagile.com^[3].

Course Outline:

Test Automation Strategy
Where test automation fits in
How much test automation
What not to automate

Automation Pyramid
Presentation
Application

Static Code Analysis/Metrics

Code metrics

Changing complexity and risk

Security risks

Maintainability risks

Automating Story and Feature Testing

Defining acceptance tests

Cross story testing

Structural	Data driven testing
Planning for Automation	Keyword driven testing
Skills	Scripting
Tools	Mapping Tests to Automation
Workflows	Acceptance tests to automate
Automation Frameworks	Unit tests to automate
Unit Test Harness	Regression coverage
Acceptance Test Frameworks for ATDD and BDD	ATDD and BDD Testing Frameworks
Traditional capture playback test frameworks	Fitnesse
Selecting Tests for Automation	Cucumber
Structural regression	UI Testing Frameworks
Business facing regression	Capture playback test generalization
Repetitive operations	Open source frameworks
Improve ability to control and observer	Commercial frameworks
Supporting Process	Automation Support for Integration and System Testing
Roles and Responsibilities for test automation	End-to-end transaction testing
Test Driven Development	Continuous integration
Acceptance Test Driven Development	Data Setup and Tear Down and Data Within Automation
Behavior Driven Development	Self contained test models
Design Driven Testing	Data independent models
Legacy automation	Mocking
Testing and Continuous Integration	Tools to Support Exploratory Testing
Build environments	Scripting
Structure regression	Note taking
Business facing regression	Mind Mapping
Static analysis	Screen capture
Automated Test Cycles (Continuous Testing)	Tools for Performing Non-Functional Testing
Flow of implementing a story	Performance testing tools
Grooming and test automation	Stress testing tools
Programming and test automation	Usability testing tools
In sprint testing activities	Security testing tools
Non-functional testing activities	Virtualization
	Virtual unit test environments

Dynamic analysis

Virtual business facing test environments

Locale variations

Reset systems to a controlled state

Class Schedule:

Sign-In/Registration 7:30 - 8:30 a.m.

Morning Session 8:30 a.m. - 12:00 p.m.

Lunch 12:00 - 1:00 p.m.

Afternoon Session 1:00 - 5:00 p.m.

Times represent the typical daily schedule. Please confirm your schedule at registration.

Course Fee Includes:

- Tuition
- ICAgile certification fee
- Course notebook
- Letter of completion

Upcoming Dates:

Your Location
