

# HOW TO SELECT THE RIGHT TEST AUTOMATION TOOL FOR YOUR PROJECT?

## STEP 1 – Structured testing process

The foundation of test automation lies within establishing a good test process. It's crucial for integrating automation smoothly into your existing workflow and to ensure that it delivers the desired outcomes.

A test process defines your testing goals and objectives which align with your broader strategy on company level.

## STEP 2 – Test automation strategy

The strategy serves as a roadmap, outlining objectives, scope and methodologies to make sure efforts are focused and aligned with business goals. It outlines key components such as:

- › Types of tests to automate
- › Integration with certain tools, such as CI/CD pipelines, test case management tooling, ...
- › Approach for test case prioritization maintenance
- › Approach for reporting

## STEP 3 – Determine prerequisites

To choose the right tool for your project, you need to understand the project requirements. Without this knowledge, you may choose testing tools and approaches that do not match your actual needs.

To help you determine all prerequisites, ask yourself the following questions:

- › What to automate?
  - ⌚ Which test objects are part of the test automation scope? Web, mobile, desktop, integrations, ... ?
  - ⌚ Functional and/or non-functional testing?
  - ⌚ What amount of test cases need to be automated?
- › Who will automate?
  - ⌚ What's the technical knowledge of the test automation team?
- › What will the approach be?
  - ⌚ How to handle parallelization?
  - ⌚ What kind of reports do we need? Dashboard, report via email, ...
  - ⌚ Which integrations do we need? Test case management tooling, Slack, device farms, ...
  - ⌚ Do we want to work BDD- or TDD-style?
  - ⌚ How often do we want to run the automated tests?
- › Are there other technological requirements?
  - ⌚ Is there a preferred programming language?
  - ⌚ Are there OS requirements?
  - ⌚ Is there already an automation solution which you need to integrate with?

## STEP 4 – Tool shortlist

The next step is to create a shortlist of tools that align with your needs and budget.

### Commercial tools

- › Designed for swift implementations right after purchase
- › Intuitive interface, even with limited technical background
- › (High) license cost
- › Scripting and technical input might be required to fully exploit the capability of the tool

### Free open-source tools

- › Zero licensing fee
- › Extensive setup
- › Highly customizable
- › Strong technical skills needed to implement and maintain

### Test automation framework

- › Customizable structures designed to enhance the efficiency of developing, maintaining and executing automated tests
- › High initial development investment
- › Substantial benefits
  - › Tailored reporting
  - › Seamless integrations with other tools
  - › Flexible test data management
  - › Choice of technology
  - › Control over test results
  - › User-friendly

## STEP 5 – Proof of Concept

Time to execute the Proof of Concept. A small-scale, focused test is created using each tool from the shortlist to evaluate how well it performs against your criteria. After this you can make an informed decision based on practical insights.

## STEP 6 – Tool selection

Selecting the right tool involves analysing the results to determine which solution best meets your requirements. The ideal solution meets your current and technical and functional criteria, long-term goals and your budget.

Consider factors as:

- › Effectiveness
- › Overall speed
- › Level of available support
- › Potential limitations
- › Costs