

# Practical Test Automation Overview



## DAY 1

### Introduction to Scripting

- Test data management with Microsoft Excel
- Scripting Fundamentals with Visual Basic and Ruby
- SQL scripting

### Data Generation Scripting

- Test Data Generation
- Creating a test data database

## DAY 2

### Test Automation Approaches & Strategy

- Capture/playback
- Scripted testing
- Data driven
- Keyword driven
- Tool implementation approach
- Project automation criteria

### Mature Test Automation Practices

- Linking and parameterisation of scripts
- Keyword driven frameworks
- Commercial tool use
- Open source tool use
- Building maintainable frameworks

## DAY 3

### Test Tool Selection

- Tool Evaluation Process
- Building a test automation roadmap

### Prac: End-to-end Test Automation Lifecycle

- Assessing what to automate
- Selecting the right tool
- Maintaining automated tests

### Managing Test Automation

- Integrating automation and manual testing
- Reporting on automated tests
- Assessing ROI
- Building the business case for automation
- Sustainable test automation

The Practical Test Automation course covers topics include Scripting & Data Generation, Test Automation Strategy, Test Automation Scripting and Tool Selection.

The course will aid a tester's understanding in the use of scripting languages and their application in testing, to provide quick and powerful means for generating bulk data for test inputs and for extracting and comparing test outputs against expected results. We focus on the basic concepts of test automation across a number of platforms and scripting languages and test automation tools, including Selenium, HP Unified Functional Tester, Visual Studio, Ruby, WATIR, Visual Basic and SQL.

The process of implementing test automation is not a simple one, yet there are recognised best practices to ensure a successful implementation. Various automation approaches are examined, along with the exploration of different tools, from commercial to open source, for deploying automated test suites.

Participants develop skills in evaluating what kinds of tests are suitable for test automation, and how to develop a test automation strategy which covers both technical aspects and essential return on investment considerations to ensure that the automation initiative is sustainable. Attention is given to developing maintainable test automation approaches which can be utilized by a wide range of people within the organization, not just test automation specialists. Participants need not have a programming background, but familiarity with scripting languages is an advantage. In-house course delivery can be customized to suit your tools of choice and staff skill levels.

### Duration

- 3 days

### Format

- Tutorials
- Exercises
- Practical sessions and demonstrations
- Full course notes, exercise sheets and related material handouts
- Mix of paper-based and PC-based exercises

### Learning Objectives

- Be able to utilise scripting languages to develop test data
- Understand the benefits of different test automation approaches.
- Be able to develop a test automation framework
- Learn how to evaluate different tools to assess their suitability

### Audience

- Software test specialists
- Development and Test Managers responsible for successful online application implementations

### Follow-on Training

- Practical Test Management
- Practical Test Project Management
- Practical Test Automation