

Software Testing Using TFS 2017 or VSTS

Course Summary

Description

This two-day course is designed for testers who need to gain a solid practical knowledge of testing applications using Microsoft Team Foundation Server 2017 or Visual Studio Team Services.

The course focuses primarily on the use of the web-based Test Hub, with some topics including Microsoft Test Manager 2017, which is both a standalone product and part of Visual Studio 2017 Enterprise edition.

The course teaches you how to design test plans that include test cases, test suites, and test configurations. Best practices are also discussed, including how you can use shared parameters and shared steps to reduce maintenance overhead.

We will examine how the web-based Test & Feedback extension improves productivity by allowing you to spend more time finding issues, and less time filing them. Attendees will learn how testers and developers can work more closely together to reduce the time it takes to find and fix software defects. Testers will learn how to manage their test plans over multiple iterations and how cloning and copying between test plans can save time and effort.

The course also looks at how you can add, edit, and execute tests using the Kanban board. Finally we'll examine creating a test/QA dashboard to illustrate progress and take a brief look at test automation.

This course includes hands-on labs to reinforce practical skills and ensure you're ready to use the tools upon your return to the workplace.

This course is equally applicable to teams using either Visual Studio Team Services or an on-premises Team Foundation Server.

Objectives

After taking this course, students will be able to:

- Explain the testing capabilities of the Visual Studio ALM product suite
- Create and manage test plans and test suites
- Manage test configurations and assign non-default configurations to test cases
- Create high quality, maintainable test cases
- Execute tests using both the web-based test runner and Microsoft Test Runner
- Use Test Case Fast Forward to help speed up the testing process
- Create actionable, high quality bug reports
- Verify resolved bugs and manage the bug lifecycle
- Conduct exploratory testing using the Test & Feedback extension
- Conduct exploratory testing using Microsoft Test Manager
- Manage test plans over multiple iterations and releases
- Create a dashboard to show test status and progress
- Report on test results and testing progress
- Gain an overview of how to create automated coded UI tests

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Course Summary (cont'd)

Topics

- A Lap around the Testing Tools in Visual Studio 2017
- Planning Our Testing Effort
- Creating Our First Test Plan
- Authoring a Manual Test Case
- Executing Test Cases
- Data-Binding Test Cases
- Refactoring Test Cases
- Raising and Verifying Bugs
- Exploratory Testing
- Focus on Microsoft Test Manager
- Testing from the Kanban Board
- Managing Test Plans from Iteration to Iteration
- Reporting Test Progress
- An Overview of Coded UI Testing

Audience

This course is designed for team members who perform the role of tester within their team in either a full-time or part-time capacity. The course would also be beneficial for developers looking to increase their knowledge of testing.

Prerequisites

Before taking this course, attendees should be familiar with testing theory and practices.

Duration

Two days

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Course Outline

- I. A Lap around the Testing Tools in Visual Studio 2017**
 - A. A look at the Visual Studio product family
 - B. Introducing Microsoft Test Manager 2017
 - C. The role of Team Foundation Server 2017 or Visual Studio Team Services
- II. Planning Our Testing Effort**
 - A. Reviewing requirements on the backlog
 - B. What is a test plan?
 - C. Defining our test plan strategy
 - D. Test types in Visual Studio
- III. Creating Our First Test Plan**
 - A. Creating a new test plan
 - B. Organizing test cases using test suites
 - C. Mapping requirements to tests
 - D. Test configurations
- IV. Authoring a Manual Test Case**
 - A. Creating a new manual test case
 - B. Using Grid view to author and edit test cases
 - C. Appropriate use of Expected Results
 - D. Tagging test cases for better organization
- V. Executing Test Cases**
 - A. Defining which tests to include in a test run
 - B. Assigning a tester to run tests
 - C. Executing tests using the web-based Test Runner
 - D. Executing tests using the Microsoft Test Runner
- VI. Data-Binding Test Cases**
 - A. Adding parameters to our test cases
 - B. Using share parameters across multiple test cases
 - C. Maintaining shared parameters
- VII. Refactoring Test Cases**
 - A. Creating shared steps
 - B. Reusing shared steps
 - C. Shared steps in the Test Runner
 - D. Best practices for shared steps
- VIII. Raising and Verifying Bugs**
 - A. Raising a bug
 - B. The bug lifecycle
 - C. View bug states
 - D. Verifying a bug fix
- IX. Exploratory Testing**
 - A. What is exploratory testing?
 - B. Installing the Test & Feedback extension
 - C. Creating bugs and test cases from exploratory tests
 - D. Eliciting and managing feedback
- X. Focus on Microsoft Test Manager**
 - A. Data collectors in MTM and balancing storage
 - B. Test Case Fast Forward
 - C. Action recordings
 - D. Raising bugs using the Microsoft Test Runner
 - E. Determining what's changing between builds
 - F. Examining impacted tests
 - G. Exploratory testing using MTM
- XI. Testing from the Kanban Board**
 - A. A lap around the Kanban board
 - B. Interacting with tests from the Kanban board
 - C. Copying and reparenting tests
- XII. Managing Test Plans from Iteration to Iteration**
 - A. The need for a test release management
 - B. Moving from iteration to iteration
 - C. Cloning test plans
 - D. Copying test cases to the next iteration
- XIII. Reporting Test Progress**
 - A. Test-related reports in TFS 2017
 - B. Creating a test/QA dashboard
- XIV. An Overview of Coded UI Testing**
 - A. Creating coded UI tests from action recording
 - B. Using the Coded UI Test Builder