

## **TFS 2013 Developer Fundamentals**

### **Course Summary**

#### **Description**

This two day course is designed to get your team working efficiently with Visual Studio 2013 as quickly as possible. The course focuses primarily on providing the skills and knowledge to use the features provided by Team Foundation Server 2013 including Work Item Tracking and Version Control. The course introduces the various components that make up Microsoft Visual Studio 2013 and the benefits of an integrated Application Lifecycle Management (ALM) suite. You will learn how to create and configure a Team Project and manage work efficiently using linked Work Items and customized queries.

The second major focus of the course examines how to use the version control system to check-in/check-out, branch, merge, shelf, and much more. We cover workspaces and explain when to choose local and when to choose server workspaces. This course looks at some of the code quality features in Visual Studio 2013 including the Visual Studio Test Explorer and the Code Review features. This course includes hands-on labs to reinforce practical skills and ensure you're ready to use the tools on your return to your workplace.

#### **Objectives**

At the end of this course, students will be able to:

- Create, configure and manage Team Projects
- Use the Team Explorer to navigate project content
- Manage work using Work Items including configuring links correctly
- Use work items such as Task and Bug to provide traceability
- Create and customize Work Item Queries to find and organize work
- Setup and manage their own custom TFS alerts (notifications)
- Configure source control folder structures
- Use the version control system effectively including branching and workspaces
- Use the MSSCCI provider to enable backward compatibility for maintaining legacy code
- Use the code quality features in Visual Studio 2013 including Test Explorer and Code Reviews
- Use Code Clone Analysis to help reduce technical debt
- Use the new Team Room feature to improve team collaboration
- Utilize the Project Portal to store project artefacts and link them to Work Items
- View the built-in reports available in TFS 2013
- Use multiple client interfaces including TWA, Team Explorer and Microsoft Office

#### **Topics**

- Creating and configuring Team Projects
- Managing and tracking work using Work Items
- Effective use of TFS Version Control
- Branching and Merging
- Unit Testing and Code Quality Tools
- Code Reviews
- Team Collaboration using Team Rooms
- Build automation using Team Build
- Putting the Project Portal to best use
- A quick look at TFS reports

#### **Audience**

This event is designed primarily for team members with current Visual Studio development skills.

#### **Prerequisites**

Attendees should be familiar with Visual Studio and the basic use of Team Foundation Server.

#### **Duration**

Two days

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### Course Outline

- I. Creating and configuring Team Projects**
  - A. Creating Team Projects
  - B. Understanding Team Project Collections
  - C. Configuring permissions
  - D. Deleting Team Projects
- II. Managing and tracking work using Work Items**
  - A. Introduction to Work Items
  - B. Creating Work Items
  - C. Linking Work Items to provide traceability
  - D. Creating and using custom Work Item Queries
- III. Effective use of TFS Version Control**
  - A. Create source control folder structures
  - B. Setting team project wide source control settings
  - C. Setup and manage workspaces
  - D. Changesets and Shelving
  - E. Understanding branching and merging
  - F. Backward compatibility using the MSSCCI provider
- IV. Branching and Merging**
  - A. Defining a branching strategy
  - B. How to branch
  - C. Branch visualization and tracking changes
  - D. Merging and resolving conflicts
  - E. Custom differencing tools
- V. Unit Testing and Code Quality Tools**
  - A. Unit Testing in Visual Studio
  - B. Visual Studio Test Explorer
  - C. Code Metrics
  - D. Code Clone Analysis
- VI. Code Reviews**
  - A. Requesting a code review
  - B. Responding to a request for code review
  - C. Providing code review feedback
- VII. Team Collaboration using Team Rooms**
  - A. Introducing Team Rooms
  - B. Team Room Communication
  - C. Managing Team Room users
  - D. Managing Team Room events
- VIII. Build automation using Team Build**
  - A. Understanding Build infrastructure
  - B. MSBuild vs Team Build
  - C. Creating build definitions
  - D. Understanding Build workflow
  - E. Monitoring Builds
- IX. Putting the Project Portal to best use**
  - A. Using the Project Portal
  - B. Storing project documents in the document library
  - C. Linking documents to Work Items
- X. A quick look at TFS reports**
  - A. A lap of available reports in TFS
  - B. Filtering reports
  - C. Creating an adhoc report in Excel