



# Administering Microsoft Visual Studio Team Foundation Server 2012

TFS2012 | 3 Days

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## INTRODUCTION

This three-day, instructor-led course provides students with the knowledge and skills to deploy, configure, and manage Microsoft Team Foundation Server 2012.

## AUDIENCE

This course is intended for experienced administrators with a background in either software development or system administration. Team leaders, lead developers, and other de-facto Team Foundation Server administrators are also encouraged to take this course.

- This course will help you prepare for the Microsoft 70-496 certification exam
- This course does not cover any developer practices

## PREREQUISITES

Before attending this course, students should have:

- A working knowledge of Windows Server 2003, 2008, or 2008R2
- An understanding of Windows-based security, networking, and virtualization
- Experience managing SQL Server 2005 or 2008
- Experience managing SharePoint 2007 or 2010
- Familiarity with Visual Studio 2005, 2008, 2010 or 2012
- Familiarity with your organization's software development process
- Be able to read and understand C# .NET code (all source code will be provided)

To help prepare for this course, students are encouraged to download and review the following:

- Team Foundation Server 2012 Installation Guide
- Team Foundation Server 2012 Administration Guide
- Team Foundation Server 2012 Upgrade Guide (CodePlex)
- Visual Studio 2010 Quick Reference Guidance (CodePlex)
- Visual Studio 2012 and MSDN Licensing White Paper



## **COURSE OUTLINE**

### **MODULE 1: INTRODUCTION TO TEAM FOUNDATION SERVER**

This module introduces Team Foundation Server, its architecture and components, and how it can manage a software development team's application lifecycle.

#### Lessons

- Introduction to Team Foundation Server (TFS)
- TFS editions and components
- Supported topologies
- TFS support of Application Lifecycle Management (ALM)
- TFS administrator's "must-have" tools
- Administration responsibilities and tasks

#### Lab

- Setup the learning environment
- Create the team's Windows groups and user accounts
- Review relevant guidance documentation

### **MODULE 2: PLANNING AND DEPLOYING TEAM FOUNDATION SERVER**

This module assists an administrator in planning a Team Foundation Server deployment. Topology options, system requirements, prerequisites, and other key decision points will be discussed so that a deployment can be performed that meets the requirements of the team and the organization.

#### Lessons

- Planning a Team Foundation Server deployment
- Hardware, software, and security requirements
- Installing Team Foundation Server prerequisites (IIS, SQL, SharePoint)
- Installing Team Foundation Server
- Configuring Team Foundation Server
- Installing Team Explorer
- Installing Team Foundation Server Power Tools
- Troubleshooting

#### Lab

- Validate the environment
- Create service accounts
- Install Team Foundation Server
- Configure Team Foundation Server
- Install Team Explorer
- Install Team Foundation Server Power Tools



### **MODULE 3: CONFIGURING TEAM FOUNDATION SERVER**

This module introduces the Team Foundation Server Administration Console and how to use it and other tools to monitor Team Foundation Server and configure its security and behavior.

#### Lessons

- Managing team project collections
- Managing process templates
- Managing team projects
- Managing security groups and permissions
- Configuring SharePoint
- Configuring SQL Server
- Using tfssconfig.exe
- Deleting a team project

#### Lab

- Create and secure a team project collection
- Create and secure a team project
- Configure SharePoint project portal
- Configure SQL Reporting Services
- Use TFS Administration Tool (CodePlex)
- Run Best Practices Analyzer

### **MODULE 4: TEAM FOUNDATION SERVER CLIENT APPLICATIONS**

This module introduces the various client applications that can communicate and interact with Team Foundation Server. This will allow the different team members to use the tool(s) of their choice.

#### Lessons

- Client Access Licenses (CALs)
- Team Explorer
- Microsoft Excel
- Microsoft Project
- SharePoint
- Team Web Access
- Command-line tools

#### Lab

- Configure and use Team Explorer
- Configure and use Microsoft Excel
- Configure and use Microsoft Project
- Configure and use the SharePoint project portal
- Configure and use Team Web Access
- Use various command-line tools





## **MODULE 5: TEAM FOUNDATION VERSION CONTROL**

This module focuses on administering Team Foundation Version Control and related components.

### Lessons

- Team Foundation Version Control
- Managing workspaces
- Managing labels
- Managing shelvesets
- Managing branches
- Check-in policies
- Controlling access to version control
- Team Foundation Server Proxy
- tf.exe command-line tool
- VSSConverter.exe (Visual SourceSafe)
- MSSCCI Provider

### Lab

- Create and manage workspaces
- Add source code to version control
- Use labels
- Create and manage shelvesets
- Branch and merge code
- Track branches and changesets
- Configure security and permissions
- Configure and use the MSSCCI Provider

## **MODULE 6: TEAM FOUNDATION BUILD**

This module focuses on Team Foundation Build, including a technical look into the architecture, execution, customization, and other administration topics.

### Lessons

- Team Foundation Build architecture
- Controllers and agents
- Securing the build process
- Automating Team Foundation Build
- Gated check-ins and private builds
- Using build process templates
- Customizing a build process template
- Using tfbuild.exe
- FAQs

### Lab Exercises

- Configure build controller and agents
- Create a build definition



- Queue a build in various ways
- Configure and use a gated check-in
- Manage builds



## **MODULE 7: UPGRADING, MIGRATING, AND INTEGRATING**

This module discusses the various approaches to upgrading to Team Foundation Server 2010 as well as migrating data and integrating with an organization's existing ALM tools.

### Lessons

- Upgrading to Team Foundation Server 2012
- In-place vs. migration upgrade
- Migrating work items
- Migrating version controlled items
- Migrating from Visual SourceSafe
- Integrating with Team Foundation Server
- TFS Integration Tools (Microsoft)
- TFS Integration Platform (CodePlex)
- Custom and 3<sup>rd</sup> party migration and integration solutions

### Lab

- Migrate work items using Microsoft Excel
- Migrate work items using TFPT.exe
- Migrate test cases using Test Case Migrator Plus" (CodePlex)
- Use Team Foundation Server Integration Tools

## **MODULE 8: ADVANCED TEAM FOUNDATION SERVER ADMINISTRATION**

This module dives into the more advanced Team Foundation Server administration topics. In addition to disaster recovery and high availability, the students will learn more advanced ways to monitor and manage Team Foundation Server.

### Lessons

- Monitoring the health of Team Foundation Server
- Options for high availability
- Options for scalability
- Capacity planning
- Disaster recovery
- Backing up and restoring Team Foundation Server
- Moving Team Foundation Server
- Splitting a Team Project Collection
- Managing the data warehouse
- Using PowerShell to manage Team Foundation Server

### Lab

- Enable Team Foundation Server Trace
- Backup Team Foundation Server using SQL Server
- Process and rebuild the data warehouse and cube
- Use PowerShell scripts to manage TFS



## MODULE 9: CUSTOMIZING AND EXTENDING TEAM FOUNDATION SERVER

This module discusses the various customization and extensibility points found in Team Foundation Server and how to leverage them to fine-tune its behavior to better meet a team's needs.

### Lessons

- Customizing vs. extending
- Customizing a process template
- Customizing process guidance
- Customizing a work item type
- Using a global list
- Using the Process Editor
- Using witadmin.exe
- Using work item templates
- Team Foundation Server reports
- Creating a custom Excel report
- Creating a custom SQL Server report
- Creating a custom check-in policy

### Lab

- Use Process Template Manager to manage process templates
- Use Process Editor
- Customize a process template
- Customize a work item type for an existing team project
- Create and use a global list
- Use work item templates
- Create a custom SQL Server report
- Deploy and test a custom check-in policy

### **Course Designer**

This course was designed by [Hassan Fadili](#) of [FadiliCT Consultancy](#). Hassan is a Visual Studio ALM MVP, as well as an experienced developer, architect, consultant and trainer. For more information, visit [www.fadilict-consultancy.nl](http://www.fadilict-consultancy.nl)