

# Visual Studio 2015 Developer Enterprise Features

Duration	2 days	Version	2015	
Skill level	Intermediate			
Audience	Experienced developers			
Products	The following product and technologies will be covered in this course			
and	Visual Studio 2015 Enterprise Edition			
technologies	Team Foundation Server 2015 or Visual Studio Online			

# **Course Description**

Many developers have been using Visual Studio for many years and continue to use the same features they have always used. This 2-day course is designed to educate developers on many of the features available in Visual Studio 2015 Enterprise edition that could greatly improve their code quality and productivity.

The Enterprise Edition is the "fully loaded" edition of Visual Studio and includes features that can improve your code testing, including the Fakes Framework and IntelliTest. There are also many new features to improve debugging and troubleshooting your code, including IntelliTrace as well as the Performance and Diagnostics Hub. Finally, we'll take a look at Code Visualisation and some of the modelling tools available to you.

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

# Team Foundation Server/Visual Studio Online

This course is equally applicable for teams using either Visual Studio Online or on-premises Team Foundation Server.

# **Previous Versions of Visual Studio**

This course is suitable for attendees currently using Visual Studio 2013 Ultimate Edition. Many of the features covered are available in Visual Studio 2013 Ultimate.

# **Course Objectives**

At the completion of this course, attendees will be able to;

- Understand the features available in Visual Studio 2015 Enterprise Edition
- Create work item charts and customize the team dashboard
- Improve unit testing through the use of the Fakes Framework
- Use code coverage to help assess unit test coverage





- Use the new IntelliTest feature to increase test coverage
- Understand how to use IntelliTrace to fault-find more efficiently
- Use the standalone IntelliTrace collector
- Utilize the Performance and Diagnostics Hub
- Analyze application usage of CPU, memory, and network resources
- Create and use code maps to visualize code for better understanding
- Create basic application models, including layer diagrams
- Request and track stakeholder feedback

#### Audience

This course is designed for experienced .NET developers.

## **Prerequisites**

Attendees are expected to be proficient developers with over 2 years' experience using Visual Studio to develop .NET applications.

## **Modules**

## Module 1 - An overview of Visual Studio 2015

- A look at the Visual Studio 2015 family
- Visual Studio Online
- A lap around the Visual Studio 2015 Enterprise features

#### Module 2 - Working with Work Items

- A review of work items and work item queries
- Creating work item charts
- Configuring the team home page

#### Module 3 - Improving Code Quality with Unit Testing

- Review of writing and running unit tests
- Using code coverage
- Installing third-party unit test frameworks
- Introducing Microsoft Fakes
- Using stubs and shims
- Optimizing the generation of Fakes
- Enhancing our unit testing using IntelliTest

# Module 4 - Getting Started with IntelliTrace

- What is IntelliTrace?
- Where does IntelliTrace fit in?
- The new IntelliTrace UI experience
- Living debugging using F5
- Understanding symbol files





- Configuring IntelliTrace options
- Using the standalone collector

## Module 5 - Diagnostic Tools

- What are the diagnostic tools?
- Navigating the Performance and Diagnostics Hub
- Analyzing UI responsiveness
- Analyzing CPU usage
- Analyzing memory usage
- Analyzing network usage

## Module 6 - Understanding Your Code Better

- Map dependencies across your solutions
- Debug your application using code maps
- Using code map analyzers

# Module 7 - An Overview of Modelling Tools

- Creating layer diagrams
- Creating models for your application
- Modelling your application architecture

#### Module 8 - Enhancing Stakeholder Feedback

- Introducing the Microsoft Feedback Client
- Using the Microsoft Feedback Client to provide rich feedback to the team
- Adding continuous feedback into your workflow

# Module 9 - Summary of Other Enterprise Features

- An overview of the testing tools<sup>1</sup>
- An overview of release management<sup>2</sup>

<sup>1</sup> This is covered extensively in our "Software Testing with Microsoft Test Manager" course

<sup>2</sup> This is covered extensively in our "DevOps using Visual Studio ALM 2015" course

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