

Course 073  
2 Days

## Writing and Using Effective Use Cases

This practical course shows how to write effective Use Cases and how they can be used to manage the progress of the project. Clear techniques for defining Actors are presented together with a consistent method of collecting and managing Business Rules. Use Case-based implementation, estimation and test strategies are used throughout to ensure that delegates appreciate the many benefits of this technology from Development and Management perspectives. Tools for developing and managing Use Cases are shown. The course is based on UML 2.1

### Course Objectives

- Explain how Use Cases are written and used.
- Explain the use of Use Cases to capture requirements
- Present successful Requirements capture techniques
- Explain how Functional and non-Functional requirements are related to Use cases
- Show how Business Rules can be captured within Use Cases and directly used by Developers
- Present techniques for the identification of all Actors and their associated Use Cases
- Show the standard UML notations for Use Cases and Use Case Diagrams
- Show how Use Cases are used for Project Estimation and with EVA (Earned Value Analysis)
- Show how Use Cases can be used to manage the development and testing processes

### Audience

- Management wanting to familiarize themselves with Use Case technology
- Analysts needing to define Use Cases or Use Case processes
- Technical staff needing to understand Use Cases

### Prerequisites

- Some knowledge of product specification and requirements capture
- Some experience of software development processes

### Timetable

Register at 09:00 for 09:30 start.  
Finish at 17:00.

### Presentation Style

Lectures, demonstrations and group discussions.

### Dates and Venues

Refer to *Course Schedules*.

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The course covers:

### Introduction to the UML

- Use Cases in Context
- The Surrounding Business Process
- What comes after Use Cases?
- What is UML 2.0?
- The UML diagrams
- Is there a UML Method?
- The Domain Model, the Use Case Model and the Design Model

### What is a Use Case

- Business Use Cases
- Business Process Diagrams
- Extracting and identifying Use Cases from Business Use Cases (System) Use Cases
- Supplementary Specifications
- Actor-identification through the Life Cycle
- The Use Case Module
- Identifying Business Rules

### Requirements Capture

- Sources of error in Requirements capture
- Methods of requirements capture and management
- Requirement Viewpoints
- Dealing with non-functional Requirements
- Ambiguity
- Prioritisation
- Prototyping
- Relationships of Requirements to Use Cases
- Requirement Management Tools

### The Use Cases for Management

- Project Stages and Use Cases
- Ranking and Build matrix
- Requirements to Use Case mapping
- Use Case Diagram vs. ToC
- The six levels of Use Case
- The three useful levels- Lite, Defined or Fully Developed
- Use Cases and Project Management

### Writing Powerful Use Cases

- Use case elements
- Actor inheritance
- The Use Case audience
- The Use Case Glossary
- Use Case packaging
- The use of Pre and Post-requisite conditions
- Inheritance, <<extends>> and <<include>>
- Scenarios
- Success / Failure categories
- Use Case sampling
- Linking Use Cases to Class diagrams

### Capturing Business Rules

- Structured English and Pseudo-code
- Decision Tables
- Logic in-line vs. logic in tables
- Decision tables and Use Cases
- Rule-based systems
- Closing the gap between Developers and Analysts

### Estimation with Use Cases

- Delphi approach
- Function Points
- Use Case Points
- Effort Estimation
- Earned Value Analysis and Use Case Points

### Support for Use Cases

- Enterprise Architect
- Rational Tools
- Dedicated UC products vs. Word

### Case Study

- End-to-end application of Use Cases to a design and implementation
- Demonstration of table-driven Business Rules

### Summary

- Next Steps
- Summary
- Conclusion