



UML Training Courses from CRaG Systems

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UML For Test Development Training Course - 2 Days

This UML training course is aimed at system and sub-system test developers who want understand how to create test scripts from UML based system documentation. The course provides an in-depth technical study of system models based on the Unified Modelling Language (UML) v2.0. The techniques learned are applicable to the testing of systems using conventional

client-server architectures, those to be deployed as web applications, and real-time or embedded systems. Each technique is taught to the level required for competence on a real project and understanding is tested and improved with exercises. Students spend a significant part of the training course applying the techniques to a real-world project example.

Delegates will learn:

- The basics and the necessary detail of the Unified Modelling Language
- The basics and necessary detail of Object Orientation
- How to develop a test strategy for user acceptance, system level, component level, integration and regression testing
- To understand a use case diagram and use case description
- How to develop a system level test script from a use case
- To understand a detailed model of the system's data using classes and their relationships
- How to develop scripts to test the systems stored data
- To understand a sequence diagram which details the functionality of a use case
- How to add detail to a test script from a sequence diagram
- To understand statecharts and the way in which they define the dynamics of a system
- How to develop scripts that test the state dependent behaviour of the system

Suitable for:

Test Developers, Test Managers and System Developers

Pre-requisites:

- A good understanding of computer systems and their application
- Some experience of developing system-level test scripts

On-Site Courses:

Training courses are delivered at the clients' site and attendance is limited to 12 students. Courses normally start at 9.30am on the first day and 9.00am on subsequent days. Courses normally finish at 5.00pm each day. The client is expected to provide an appropriate venue, equipment and refreshments. Required equipment includes an SVGA/XGA projector and screen,

whiteboard or flipchart and at least one computer per two students loaded with a UML case tool. For a discussion on case tool use please see [Case Tool Use on Courses](#). Printed course manuals for each student with copies of all presentations, exercises and solutions are provided. For a full discussion of on-site course issues please see [On-Site Course Logistics](#).

Scheduled Public Courses:

This course is currently not available as scheduled public training. Please see the [Scheduled Public Courses](#) page for available courses.

Training Course Outline

<p>Day 1</p> <p>Introduction</p> <p>People - Course Structure - Unified Modelling Language - Overview of Test Strategies - Using UML For System Test Development - Using UML for Component Test Development</p> <p>Developing System Test Scripts From Use Cases</p> <p>System Use Cases and Actors - Primary Use Cases and the Basic Course - Reading Use Case Descriptions - Sub-flows and Alternate Flows - 'Include' and 'Extend' Relationships - Script Structure - Example Scripts</p> <p><i>Basic System Testing Workshop</i></p> <p>Data Model Testing From Class Diagrams</p> <p>What is an Object? - Classes and Objects - Attributes - Operations and Methods - Associations and Links - Navigability and Naming - Multiplicity and Other Adornments - Association Classes - Aggregation and Composition - Strategies for Testing - Example Scripts</p>	<p>Day 2</p> <p><i>Stored Data Testing Workshop</i></p> <p>Interaction Model Testing From Sequence Diagrams</p> <p>Interactions, Messages, Operations and Methods - Sequence Diagrams - Selection and Iteration - Activation - Collaboration Diagrams - Strategies for Testing - Example Scripts</p> <p><i>Interaction Model Testing Workshop</i></p> <p>State Model Testing From Statecharts</p> <p>The Meaning of the State Model - States and Transitions - Events and Conditions - Actions and Activities - Consistency with Other Diagrams - Strategies for Testing - Example Scripts</p> <p><i>State Model Testing Workshop</i></p>
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