



CRaG Systems Modelling Training and Consultancy

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Real-Time UML with Enterprise Architect KickStart Model Development Workshop - N Days

CRaG Systems Real-time UML with Enterprise Architect KickStart Model Development Workshops provide focused, intensive workshops that get your project moving immediately. KickStart Hands-On Model Development teaches the concepts of UML for real-time systems modelling by applying the methods directly to your real project using Sparx Systems' Enterprise Architect modelling tool with valuable and practical benefits to your team. RT UML modelling methods are learned and retained better by the students since it is relevant to the team project, directly applied to the project, and there are no long theory classes before applying the methods. The consultant shows the team how to develop whichever of the views of system requirements, system analysis, system architecture and system design are required for the project.

The model is constructed using Enterprise Architect in a way that follows industry best practice for each part of the model. The consultant teaches the necessary detail of the relevant syntax as the model is developed. Students work either in teams or separately to develop further the models started by the consultant and under his or her guidance. Enterprise Architect and the UML 2.5 notation are used throughout. The models produced are sufficiently detailed to allow the students subsequently to complete the models unaided.

Delegates will learn some or all of the following RTUML skills as required:

- The basics and the necessary detail of the Unified Modelling Language
- The basics and the detail of Object Orientation
- How to create an overview of functional requirements for real-time and embedded systems with actors and use cases on a use case diagram
- How to structure the use case diagram to handle complex relationships between use cases without bloating the use case model
- How to create a detailed model of real-time system structure and data using classes and their relationships
- How to recognise complex data constructs and to use the appropriate syntax to model them
- How to map the functionality of the real-time system requirements onto the object model using sequence diagrams
- How to model the dynamics of real-time system data and functionality using state machine diagrams
- How to model at a consistent level of abstraction
- How to develop a flexible real-time system architecture from an object oriented analysis model
- How to develop component and deployment models for the system
- How to model the design of a component using sub-systems and interfaces
- How to build libraries of re-useable real-time and embedded classes using generalisation and inheritance
- How to model the use of technology and frameworks as series of design patterns
- How to integrate libraries and frameworks into the design of components

Delegates will learn some or all of the following Enterprise Architect skills as required:

- The basics and the necessary detail of the use of Enterprise Architect
- How to model requirements and make them traceable all the way through the model to code
- How to model tests and relate them to requirements, components and code
- How to generate and maintain documents from the different parts of the model
- How to link the model with externally maintained documents and data
- How to generate frame code and keep the design and code models synchronised
- How to integrate the Enterprise Architect with external coding environments for round-trip engineering
- How to use the tool in a multi-user environment integrated with a version control system

- How to use the project management capabilities available within Enterprise Architect

Suitable for:



Real-time Project Managers, Requirements Specifiers, System Architects, System Designers, Developers and Analyst/Programmers with at least 2 years experience, preferably in a modern object-oriented language.

This course is not suitable for those seeking certification as a step towards a qualification. See the Certification Policy for a detailed discussion.

Project Materials Preparation:



The client is advised to provide adequate documentation regarding the overall project goals and functionality of the project to be modelled, under non-disclosure if necessary, at least 2 weeks prior to the start of the training, if possible. If no project documentation is available, then a stakeholder with a suitable knowledge of the problem domain should be available to take part in the workshop sessions. Stakeholder involvement in problem domain modelling sessions is always encouraged.

On-Site Workshop Logistics:



Workshops are delivered at the clients' site and attendance is normally limited to 12 students. Workshops normally start at 9.30am on the first day and 9.00am on subsequent days with an hour for lunch and a 15 minute break in the morning and again the afternoon. Workshops normally finish at 5.00pm each day. The client is expected to provide an appropriate venue, equipment and refreshments. Required equipment includes an XGA/WXGA projector and screen, whiteboard or flipchart and at least one computer per two students loaded with either the evaluation version of Enterprise Architect or a recent licenced copy. For a full discussion of on-site workshop issues please see On-Site Course and Workshop Logistics.

Pricing:



Please use the On-Site Workshop Price Calculator to get firm quotations for workshops of different lengths on-site at your premises depending on your expected need.

Suggested Daily Workshop Outline

AM	PM
<p>Outline</p> <p>Review of model so far - scope modelling for today</p> <p>Modelling</p> <p>Consultant led initial development of chosen modelling area. Assignment of modelling tasks.</p>	<p>Modelling</p> <p>Consultant supported team/individual development of assigned modelling tasks</p> <p>Review</p> <p>Consolidation and review of the days modelling work</p>

Should the content of any Real-Time (RT) UML with Enterprise Architect workshop training course not fit your exact requirements, then CRaG Systems can create a custom course for you. Please either email or call us to discuss your particular needs.

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