Pascal Roques Formation & Conseil

SysML in action with CSM or EA

Systems engineers have been using modeling techniques for decades. The best-known include functional approaches, which date from the 1980s, but were limited by their low power of expression. The Systems Engineering community therefore wanted to define an adequate common modeling language: **SysML** (Systems Modeling Language).

This in-depth practical training will show you how to use efficiently the **SysML** modeling language. Through a case study starting with requirement and use case diagrams, you will discover then block diagrams for structural modeling of complex systems. You will deepen the sequence diagram, the state diagram and activity diagram for dynamic modeling. You will also learn to use specific SysML diagrams, such as the parametric diagram, as well as the important concept of allocation. We will mostly focus on the benefits of an efficient modeling tool, through a complete case study performed with either **Cameo Systems Modeler** (NoMagic), or **Enterprise Architect** (Sparx).

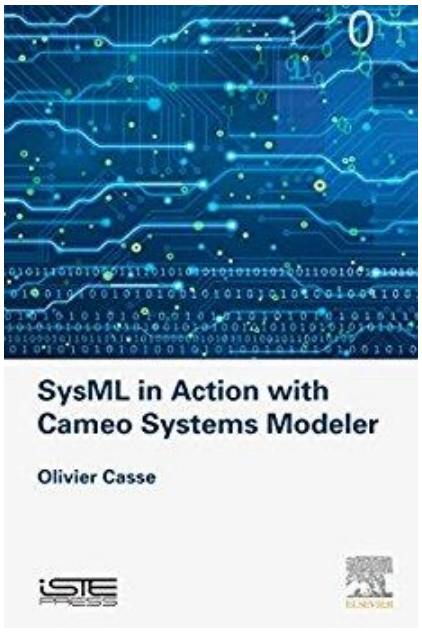
Duration: 4 days

Audience:
Project managers, architects, system engineers, wishing to use efficiently CSM or EA

Prerequisite:
Experience in Systems Engineering
The training « MBSE with SysML » is recommended beforehand.

Teaching Method:

Theoretical presentation with examples (33%)
Case Study realized with **CSM** or **EA** (66%)



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Program

Introduction

- Systems Engineering
- MBSE

SysML and CSM/EA

- Reminders on SysML
- Proposed Approach
- Overview of CSM/EA
- Presentation of the case study

Operational Analysis

- Concepts and diagrams
- *Case study #1 with CSM/EA*
  - *req, uc, bdd, ibd, sd, stm*

System Analysis

- Concepts and diagrams
- *Case study #2 with CSM/EA*
  - *req, ibd, sd, bdd*

Logical Architecture

- Concepts and diagrams
- *Case study #3 with CSM/EA*
  - *act, sd, stm, bdd, ibd, par*

Physical Architecture

- Concepts and diagrams
- *Case study #4 with CSM/EA*
  - *ibd, par, allocations*

More on CSM/EA

- Simulation
- Documentation generation

Conclusion

ENTERPRISE ARCHITECT

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