

## SysML in action with CSM (3 days)

Systems engineers have been using modeling techniques for decades. The best-known include the functional approaches SADT and SA/RT, which date from the 1980s, but were limited by their low power of expression. The Systems Engineering community therefore wanted to define a common modeling language adapted to its problems: **SysML** (Systems Modeling Language). This practical training will show you how to use efficiently the SysML modeling language. You will discover in particular the 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 requirements diagram and 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 **Cameo Systems Modeler (CSM)** from NoMagic.

**Duration:** 3 days

**Audience:**

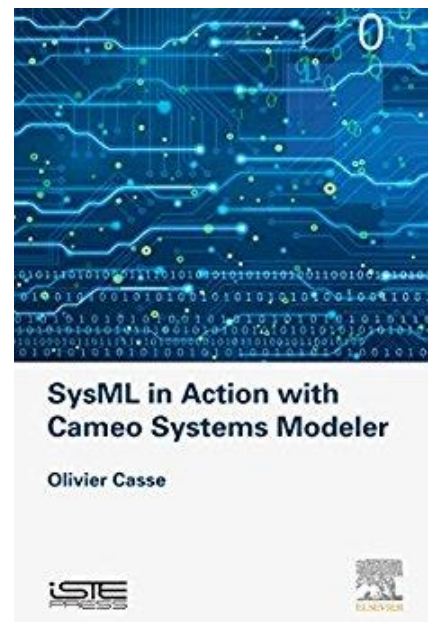
Project managers, architects, system engineers,  
wishing to use efficiently Cameo Systems Modeler

**Prerequisite:**

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

**Teaching Method:**

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



## Program

### Introduction

Systems Engineering  
MBSE

### SysML and CSM

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

### Operational Analysis

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

### System Analysis

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

### Logical Architecture

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

### Physical Architecture

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

### More on CSM

Simulation with CST  
Documentation generation

### Conclusion