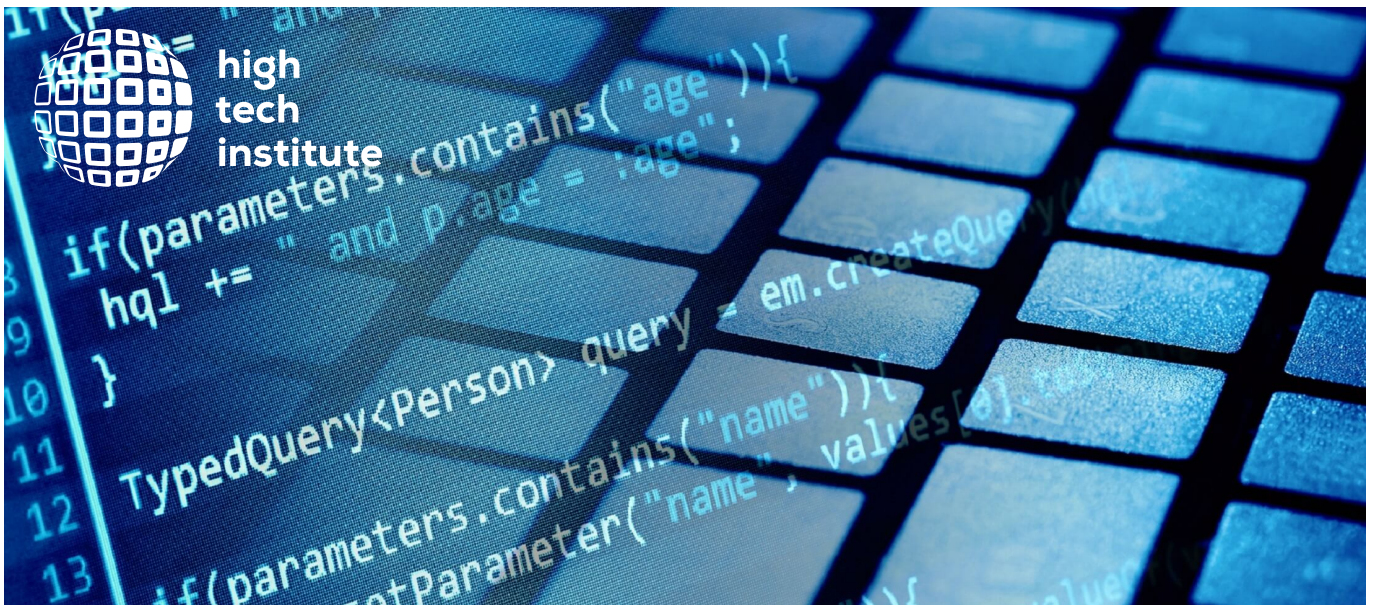


**TRAINING BROCHURE**

# **System modelling with SysML training**



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## System modelling with SysML

**Price:** € 2,510 excl. VAT \*

**Duration:** 4 consecutive days

**Contact:** [training@hightechinstitute.nl](mailto:training@hightechinstitute.nl), +31 85 401 3600

**Score:** 6.7 ★★★★★

### Intro

As a natural extension to the Unified Modeling Language (UML) for software modelling and specification, the Object Management Group (OMG), together with its industrial partners, has set a standard for the system modelling language SysML. This language supports the integral modelling and specification of software intensive systems and helps to improve system-architecting practices by enabling systematic model-based systems engineering (MBSE).

Our course System Modelling with SysML aims to provide a basic working knowledge of the various modeling techniques offered in the SysML.

### Detailed explanation & relevance

*This training is available for open enrollment as well as for in-company sessions. For in-company sessions, the System modelling with SysML training can be adapted to your situation and special needs.*

### Objective

Participants will learn:

- A general approach to model based system engineering;
- Allocate functionality in use cases over the system parts;
- The various modeling techniques in the SysML;
- To describe behavior using state machine diagrams;
- To capture functional requirements using use cases;
- To describe behavior using activity diagrams;
- To model dependencies between functional and non-functional requirements;
- To address allocation of behavior, e.g. to software or hardware parts;
- To model system structure using block diagrams with parts and ports;
- To model physical and logical constraints, and studying trade-offs;
- Some heuristics and evaluation techniques to obtain high quality models.

### Target audience

This course is intended for:

- System analysts;
- Systems engineers;
- System architects;
- Managers who are responsible for the delivery of software intensive systems;
- Professionals moving into system-level engineering

The participants will need to have working knowledge of UML and an initial understanding of generic system engineering processes.

### Certification

Participants will receive a High Tech Institute certificate for attending this course.

### Trainers

[Eric Burgers](#)

*\* Prices are subject to change. Price correction will be applied at the end of the year.*

Keep me posted



## Program

### Day 1

- SysML approach and overview;
- Capturing functional requirements using use cases;
- Requirements modeling in SysML;
- System hierarchy and interconnection: Block diagrams.

### Day 2

- System hierarchy and interconnection: Internal Block diagrams;
- Structuring a SysML model (packaging);
- System behaviour analysis: Use Case analysis and Sequence diagrams.

### Day 3

- System functional behaviour: Activity diagrams;
- System state-based behaviour: State Machine diagrams.

### Day 4

- System design constraints: Parametric diagrams;
- Trade studies on non-functional constraints (performance, reliability etc.);
- Integrating SysML into a development environment.

## Methods

Lectures, small exercises and workshop. Training will be held in English or Dutch, depending on the participants.

The training is tool-independent.

## Video



## Frequency

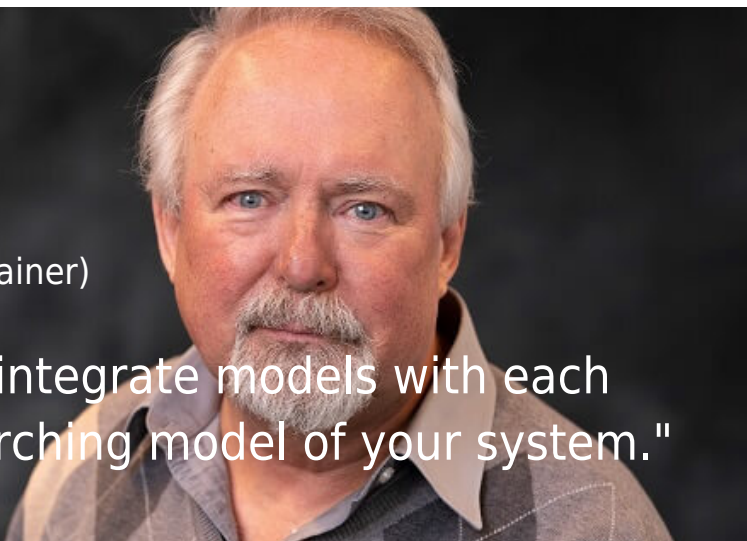
Once per year

Read the interview:



Eric Burgers (trainer)

"Only when everything is read in the correct order can the actual design be derived"



Dr. Onno van Roosmalen (former trainer)

"With Sysml you can still integrate models with each other and make an overarching model of your system."

Remarks from participants:

- "Useful, gives insight into the system to be realised." > Peter Munter