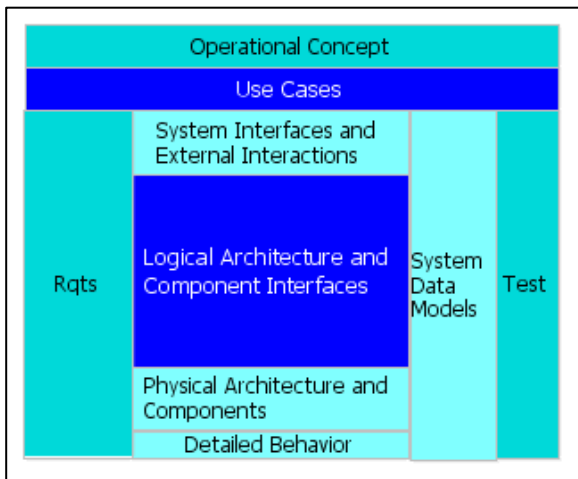


# Pathfinder Solutions *Effective SysML* Training

*5-day class delivers pragmatic model-driven systems engineering approach for complex, high performance systems using the SysML language.*

Architecting, specifying and developing complex, high performance systems present unprecedented challenges. To manage complexity, deliver quality, improve productivity, and maximize the collaboration between with systems engineering and development, successful systems engineering organizations practice an architecture-focused, model-driven approach. Giving their systems development teams a competitive edge, this methodology optimizes industry best practice with specific collaborative techniques.

Bring your team up to speed on this proven and effective approach quickly and efficiently with Pathfinder Solutions *Effective SysML* training. Based on a decades of industry experience with model-driven systems software development, this 5 day course delivers a complete tool-independent methodology for architecting and specifying complex, embedded, real-time and other high performance systems.



*This model-driven systems engineering approach is specifically optimized to enhance collaboration in the development of complex, high performance systems in distributed deployments.*

*“The methodology emphasis and tool independence put this class head-and-shoulders above the typical tool-focused training out there. The step-by-step process is invaluable.”*

**Brian P., System Architect**  
Lockheed-Martin



## **Effective SysML Course Outline**

This 5-day course is organized to sequentially build general SysML and modeling skills while teaching each integrated phase of the methodology:

### **MDSE with SysML - Overview**

- The System and the World, the System Within
- Work Products Produced
- General Modeling Common Sense

### **SysML Introduction**

- History
- Core Semantics, Diagram Type Overview
- Model Organization
- Requirements

### **System Concepts and Context**

- Operational Concept
- Context Diagram
- External Interfaces



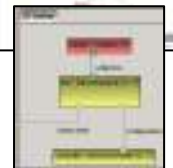
### **Use Case Modeling**

- Core Semantics
- Building Use Cases
- Reviewing Use Case models



### **Logical Architecture**

- Core Semantics
- Construction and Evolution
- Reviewing Logical Architectures



### **Detailed Blocks and Behavior**

- Core Semantics
- Construction and Evolution
- Correlation with Software Architecture
- Reviewing blocks and behavior

### **Requirements**

- Core Semantics
- Construction and Evolution
- Reviewing requirements throughout

### **Physical Architecture, Execution and Test**

- Core Semantics and techniques
- Simulation, Execution and Construction
- Review

### **Bridging to Development**

- The Chasm
- Drivers for collaboration
- The Obstacles
- Shared Elements
- Joint development



# Pathfinder Solutions *Effective SysML* Training

## **Refined Curriculum based on Pragmatic Techniques**

The *Effective SysML* class delivers a proven model-driven approach that is an accumulation of decades of industry best practice. Synthesizing this practice into a coherent methodology, Pathfinder Solutions has tailored each step to fit into an overall process for specifying, architecting and developing complex systems. This course teaches your team what it needs to know to get your project done successfully and on schedule with a simple, effective and proven approach,

## **Build Team-Wide Competence**

Accommodating engineers with a range of experience and ability, the *Effective SysML* course has been specifically tuned to quickly bring your entire team up to an effective level of competence.

## **Extensive In-Class Exercises**

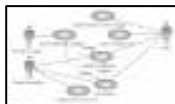
Class material is reinforced and internalized with an extensive set of in-class exercises. The team-based whiteboard efforts build actual model elements in settings closely matching real-world contexts.

## **Integrated Example System Provided**

In-class exercises build actual elements of a complex example system. A non-trivial system with a range of components, this example is sufficiently challenging to illuminate the utility of each modeling technique but is still simple enough to grasp within the class context. Available in a range of modeling environments as a complete SysML model, the example system is a valuable resource both during the class and afterwards as a rich reference.

## **On-Site Classes Available**

Have *Effective SysML* Training onsite at your location to reduce travel costs and inconvenience.



## **Substantially Improve Business Results**

*Effective SysML* focuses on optimizing modeling efforts to efficiently meet work product consumer needs. In addition to improving system quality and overall productivity, this approach enhances the extent and effectiveness of collaboration between systems engineering and software architecture/development efforts.

## **Tool-Independent Methodology**

Based on OMG SysML standards with a focus on logical architecture and platform independent techniques, this step-by-step approach is suitable for use with a range of modern modeling environments. An optional tool-specific module is available for hands-on instruction in building SysML models in popular tools, including Telelogic Rhapsody and IBM Rational Systems Developer.

## **Maintain Momentum with Pathfinder Solutions Mentoring After the Class**

*Effective SysML* students and instructors develop rhythm and momentum. Continue building success with Pathfinder Solutions Mentoring. Our experienced mentors continue to teach and guide, directly participating in your team's systems engineering efforts.

## **Industries & Application Domains**

*Effective SysML* training has helped build competent modelers in a wide range of industries:

- Defense & Avionics
- Automotive
- Medical Instrumentation
- Manufacturing and Process Control
- Telecommunications
- Consumer Electronics

*Give your team the competitive edge - contact us:*

Pathfinder Solutions • 33 Commercial Street, Suite 2 • Foxboro, Massachusetts 02035  
888-662-PATH • [info@PathfinderMDA.com](mailto:info@PathfinderMDA.com) • [www.PathfinderMDA.com](http://www.PathfinderMDA.com) • +1 508-568-0068