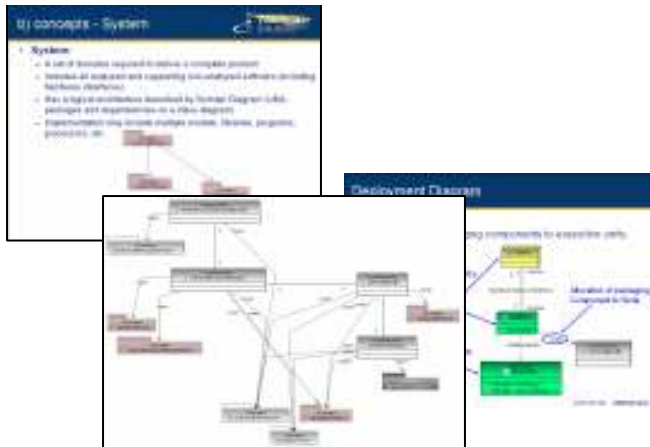


# Pathfinder Solutions OOA/D with UML Training

*4-day tool-independent class in Object Oriented Analysis and Design modeling with UML*

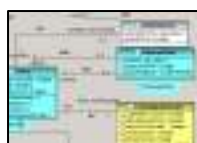
Teams developing and deploying high performance systems face unprecedented complexity, implementation and productivity challenges. Building software architecture and describing component design with the Unified Modeling Language (UML) can help, but to be effective developers must apply appropriate semantics in a coherent approach. Successful organizations rely on proven methods to build Object Oriented Analysis and Design software models, leveraging a coherent set of modeling techniques and disciplines. Through this solid engineering foundation they reap substantial gains in developer productivity and overall system quality.

Bring your team up to speed quickly in these valuable techniques with Pathfinder Solutions *OOA/D with UML* training. Based on a decades of industry experience with model-driven software development, this 4 day course delivers the core semantic and UML language skills needed for building complex, embedded, real-time and other high performance systems.



*"Pathfinder training gave our team the step by step techniques we needed to get the job done right. Real pros – they know their stuff."*

**Tony R., Lead Designer**  
Abbott Labs



## **OOA/D with UML Course Outline**

This 4-day course teaches how to build flexible and durable architectures and components using object oriented analysis and design modeling techniques in UML:

### **OOA/D Modeling Overview**

- Why do we model?
- OOA/D Process and Key Elements
- Implementing OO Systems

### **Use Case Modeling**

- Outline system capabilities with Use Cases
- Construct a Use Case Models
- Objectively evaluate Use Case Models

### **Logical Architecture and Domain Modeling**

- Logical Architecture
- Component Interfaces
- Component Scenario Modeling
- Objectively evaluate Logical Architecture

### **Class Modeling**

- Platform-Independent modeling
- Classes, Associations, Generalization
- Objectively evaluate Class Models

### **Behavioral Modeling**

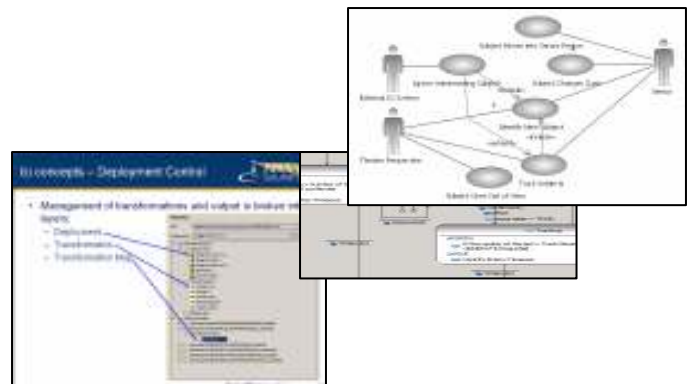
- State Independent Behavior
- State Machines and Activity Diagrams
- Key Component-level Scenario Modeling
- Component-wide behavioral strategy
- Objectively evaluate Behavior Diagrams

### **Programming Actions**

- Motivations and Tradeoffs
- Code-based actions
- UML-level accessors

### **Advanced UML Topics**

- Component, Deployment Diagrams
- Profiles and Stereotype





# Pathfinder Solutions OOA/D with UML Training

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

The *OOA/D with UML* class delivers a proven model-driven approach that is an accumulation of decades of industry best practice. Pathfinder Solutions has tailored each modeling technique to fit into an overall process for building complex systems. Giving you a simple, coherent, effective and proven approach, this course teaches your team what it needs to know to get your project done successfully and on schedule.

## **Builds Team-Wide Competence**

Accommodating engineers with a range of experience and ability, the *OOA/D with UML* course has been specifically tuned to quickly bring your entire team up to a the level of competent practitioner with UML.

## **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 system 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 UML environment as an complete model, the example system is a valuable resource during the class, and afterwards as a rich reference.

## **On-Site Classes Available**

Have *OOA/D with UML* Training onsite at your location to reduce travel costs and inconvenience.

## **Industries & Application Domains**

The key techniques and disciplines taught in the *OOA/D with UML* training have helped build competent modelers in a wide range of industries:

- Defense & Avionics
- Automotive
- Medical Instrumentation
- Manufacturing and Process Control
- Telecommunications
- Consumer Electronics
- Integrated Enterprise Management
- Personnel Systems

## **Integrate Models with Hand-Written Code**

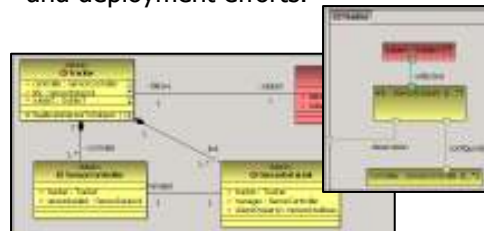
Ranging from architectural techniques for interfacing with legacy code bases to simple integration of hand-written data structures, *OOA/D with UML* teaches proven methods for integrating with non-modeled components.

## **Tool-Independent Methodology**

Based the OMG UML2 standard, modeling techniques from *OOA/D with UML* are suitable for use with a range of modern UML editing environments.

## **Maintain Momentum with Pathfinder Solutions Mentoring after the class**

*OOA/D with UML* students and instructors build a rhythm and momentum. Continue building success with Pathfinder Solutions Mentoring. Our experienced mentors continue to teach and guide your team, directly participating in your team's architecture, development, integration and deployment efforts.



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

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