Contents & Goals

Last Lecture:
• Motivation: model-based development of things (houses, software) to cope with complexity, detect errors early
• Model-based (or -driven) Software Engineering
• UML Mode of the Lecture: Blueprint.

This Lecture:
• Educational Objectives:
  - Why is UML of the form it is?
  - Shall one feel bad if not using all diagrams during software development?
  - What is a signature, an object, a system state, etc.? What's the purpose of signature, object, etc. in the course?
  - How do Basic Object System Signatures relate to UML class diagrams?

Why (of all things) UML?

• Boxes/lines and finite automata are used to visualise software for ages.
• 1970's, Software Crisis — Idea: learn from engineering disciplines to handle growing complexity.
  Languages: Flowcharts, Nassi-Shneiderman, Entity-Relation Diagrams
• Mid 1980's: Statecharts [Harel, 1987], StateMate [Harel et al., 1990]
• Early 1990's, advent of Object-Oriented Analysis/Design/Programming — Inflation of notations and methods, most prominent:
  • Object-Modeling Technique (OMT) [Rumbaugh et al., 1990]

A Brief History of UML

• Brief history of UML
• Basic Object System Signature, Structure, and System State
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- Inflation of notations and methods, most prominent:
  - Object-Modeling Technique (OMT) [Rumbaugh et al., 1990]
  - Booch Method and Notation [Booch, 1993]
  - Object-Oriented Software Engineering (OOSE) [Jacobson et al., 1992]
Each "persuasion" selling books, tools, seminars.

Late 1990's: joint effort UML 0.x, 1.x Standards published by Object Management Group (OMG), "international, open membership, not-for-profit computer industry consortium".

Since 2005: UML 2.x
Basic Object System Structure
You Are Here.

Course Map

References


