PXL – Digital
42TIN1280 Software analysis - Model Based Documentation of Requirements

Week 11 – semester 01

Luc Doumen

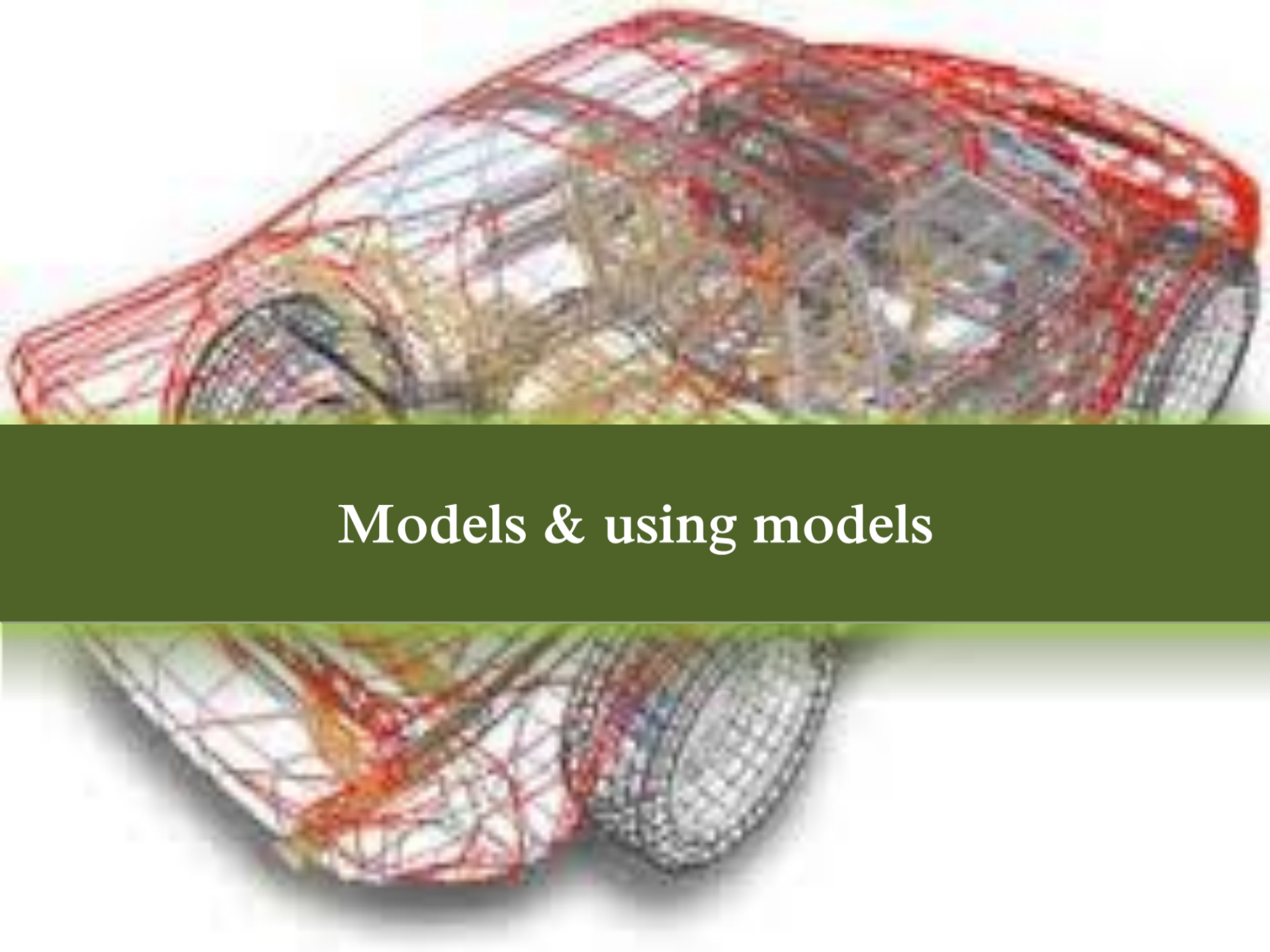
Nathalie Fuchs

DE HOGESCHOOL MET HET NETWERK

Elfde-Liniestraat 24, 3500 Hasselt, www.pxl.be

Content

- Models & using models
- Topic overview
  - Goal models
  - Use models (system use cases)
  - 3 perspectives on requirements
    - Data/structural: ERM, Class models
    - Functional: Data Flow Diagram, Activity diagram
    - Behavioral: State charts
  - Sequence diagram
- Key learning points
- Questions & answers



Models & using models

Topic Overview

- Goal models
- System use case models (+ descriptions)
- Three perspectives on requirements
  - Data perspective
    - ERM, Class models (UML)
  - Functional perspective
    - Data flow diagrams, Activity diagrams (UML)
  - Behavioral perspective
    - State charts
- **Sequence diagrams**

Sequence diagrams

- Tutorials YouTube
  - How to Describe Systems' Interactions Using UML Sequence Diagram
  - UML Behavioral Diagrams: Sequence - Georgia Tech - Software Development Process

Key Learning Points (1)

- Knowing models and their properties
- Advantages of using requirements models
- Knowing and understanding 2 types of goal decomposition
- Drawing, knowing and understanding system use case diagrams and use case specifications/descriptions
- 3 Perspectives on requirements
  - Next slide

Key Learning Points (2)

- 3 Perspectives on requirements (continued)
  - Data perspective
    - Knowing and understanding entity relationship diagrams
    - Knowing and understanding UML class diagrams
  - Functional perspective
    - Knowing and understanding data flow diagrams
    - Drawing, knowing and understanding UML activity diagrams
  - Behavioral perspective
    - Drawing, knowing and understanding UML state charts

Key Learning Points (3)

- Knowing and understanding sequence diagrams
- Be able to compare the models
- Knowing and understanding the pro's and con's of the models

Questions & answers