Data Management for Engineering Applications

Winter Semester
2017/2018

Dr. Eike Schallehn
Why is Eike Schallehn doing this lecture? ;-)

• Studied in Magdeburg
  – 1994: during an internship developed system for management of technical drawings (back then still stored on paper!!)
  – 1996: diploma thesis on the applicability of object-oriented systems for engineering applications

• 1996 – 1999 in a object-oriented database company
  – Many customers used this database for engineering applications (1 CAD system by Siemens, several Engineering Data Management Systems)

• Since 1999 back at the OvGU
  – Involved in several projects
  – Teaching: introduction lecture “Computer Science for Engineers”, several small lecture on advanced concepts of data management
Field of the Lecture

Engineering applications with specific requirements

Database features for non-standard applications
Content Overview

• Product Data
  – Geometrical Data and CAD
  – Complex Product Structures
  – Non-geometrical Data, Simulation, FEM, etc.

• Product Data Management
  – Versions, Variants, Configurations
  – Product Data and Engineering Documents

• Product Life Cycle Management
  – Engineering Processes
  – Collaborative work
  – Integration and Interoperability
Further Readings

- Lecture and slides are supposed to be self-contained
- References to literature for additional reading will be made available within separate chapters where appropriate
Organizational Overview

• Lecture
  – Once a week
    • Lecture
    • Questions

• Exercise
  – Once a week, two alternative time slots
    • Exercise sheets (online)
    • Questions and discussions
  – First exercise in 3rd week of teaching period

• Exams
  – Oral exams after the end of the lecture period
  – Registration for exams in January
Questions?