Data Management for Engineering Applications

Winter Semester
2015/2016

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 with engineering context
  – 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

Data management features for non-standard applications

Schallehn: Data Management for Engineering Applications
Content Overview

• Background
  – Basic terms
  – Typical data management solutions

• 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

- Weekly lecture
- Weekly exercise
  - 2 alternative dates according to LSF
  - First exercises start in the 3rd week of teaching period
- Exams
  - Written exams after the end of the lecture period
  - Registration for exams using HISQUIS system
Questions?