

Who we are

- Prof. Dr. Colin Atkinson
- Dr. Ursula Rost
 - Leader of programming courses
- Research Assistants / PhD
 - Marcus Kessel
 - Arne Lange
- ... *software engineering* is all about supporting the systematic development of software systems through engineering approaches like methods, techniques and tools



Courses

■ Bachelor

- CS 308 Softwaretechnik I (*Prof. Atkinson*)
 - *Foundations of Software Development*
- CS 306 Praktikum Software Engineering (*Prof. Atkinson*)
 - *Team project*

■ Master

- CS 500 Advanced Software Engineering (*Prof. Atkinson*)
 - *Software Specification, Software Testing, ...*
- CS 600 Model-Driven Development (*Prof. Atkinson*)
 - *MDA, CIM, PIM, PSM, DSL & TLAs...*
- CS 450 Programming Course (*Dr. Ursula Rost*) – **MMDS only**
 - *Basic concepts of object-oriented programming*
- ... Team projects, Seminars and Theses
 - *Several different projects (see research foci)*



Some Research Foci ...

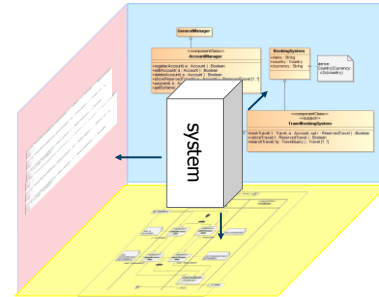
1. Model-Driven Development

- Multi-Level-Modeling
- MELANEE Modeling Tool
- Augmented reality (Hololens)



2. View-Based Software Engineering

- Projective Modeling
- Ortographic Systems Engineering
- Single-Underlying Model



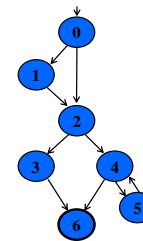
3. Big Code - Mining Software Repositories

- Large-Scale Code Analyses (LASSO)
- (Test-driven) Code Search & Software Reuse
- Software Testing & Test Generation



CS 500 - Advanced Software Engineering

- Foundation course
- Fall semester
- English
- ECTS: 6
- Main topics
 - Model-based, multi-view system specification
 - Test design and description
 - Black-box testing approaches
- No pre-requisites
- Evaluated by a single written exam

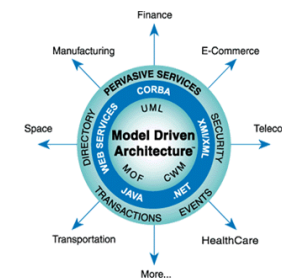
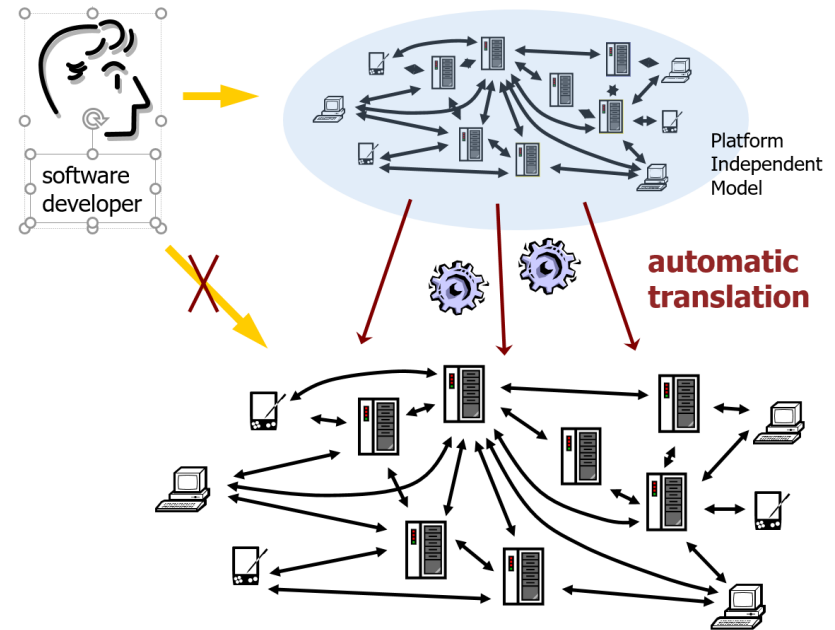


	A	B	C	D
1	'Stack	create		
2	D1	push	23	
3	D1	push	42	
4	D1	pop		42 23
5	D1	pop		C2



CS 600 - Model-Driven Development

- Specialization course
- Fall semester
- English
- ECTS: 6
- Main topics
 - Metamodeling
 - Object Constraint Language (OCL)
 - Domain-Specific Languages
 - Model transformation
 - Multi-level modelling
 - ...
- Prerequisites: Advanced Software Engineering
- Evaluated by a single written exam



CS 450 - Programming Course

- Foundation course
- HWS semester
- English
- ECTS: 6
- Main topics
 - get to know the basic concepts of (object-oriented) programming
 - acquire knowledge in some advanced areas such as writing GUI applications and dealing with external data (XML, databases)
 - learn to write programs in the Java programming language
 - get to know some tools for development (text editor, IDE (eclipse), debugger)
- No pre-requisites
- Lecturer: Dr. Ursula Rost
- Evaluated by written examination + team project



Tutors / Hiwi's

- We are looking for Tutors/Hiwi's on a regular basis
- Tutors for programming courses
 - Software Engineering Practical
 - ...
- Support ongoing research projects!

