



Configuration Management

EDA/DAT240, lp2, HT07

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Purpose and goal



Purpose:

To explain the general concepts and principles of SCM. To experiment with specific techniques and mechanisms in existing SCM tools. To give an understanding of how an SCM system is composed from processes, tools and people. To show how SCM can service and support other parts of the software development process.

Goal:

The goal of the course is that the student will be able to select proper concepts and principles from Software Configuration Management and adapt and apply them to different real-world context.



Knowledge and understanding



After completing this course the student will be able to:

- identify and explain problems caused by missing or bad SCM
- describe and motivate traditional SCM and its activities
- describe and motivate principles for developer-oriented SCM
- relate the SCM solutions to the needs at different levels and roles



Skills and abilities



After completing this course the student will be able to:

- create and define processes for different SCM tasks
- select and adapt general SCM principles to specific contexts
- evaluate and select a branching strategy for a given context
- develop and implement a change management process
- structure and write an SCM plan
- test and evaluate SCM tools



Judgement and approach



After completing this course the student will be able to:

- read a paper and make a presentation of its main points
- make guided experiments with SCM tools
- find and read through quantities of literature



Overview



Seven weeks:

- Lecture (introductory)
- Exercise session
- Lecture (in-depth)
- Tool lab

Mini project:

- 3-4 people - 3-4 work days
- literature search/review
- 5-8 page report



Mini projects



Possible topics:

- Tool evaluation
- SCM plan for company with Open Source
- Teaching SCM to developers
- Strategies for handling variants
- Job opening
- Evaluation of Continuous Integration
- A next generation Build System
- ???