Subject Matter

introduction .................................................a first problem analysis
fundamentals .............domain analysis, program families, and object orientation
case study ............design and development of TAL, a threads abstraction layer
discussion .........................things nice to have and not to have
revision ........................................aspect orientation
conclusion .....................................lessons learned

Educational Objectives

- an excursion on modern operating-system design and implementation
  - focusing on system-software flexibility, portability, and scalability
- the use of software-engineering techniques in system-software design
  - feature modeling [3]
  - program families [5]
  - object orientation [8]
  - aspect-oriented programming [4]
- an inauguration into the secrets and a rationale of PURE [1]

Prerequisites

- structured computer organization, operating systems
- C/C++, assembler
- enjoy system-level programming
- no fear of stuff hard to digest
- some sort of staying power
Syllabus

- one **lecture** per week, two hours each ................................. 2 SWS
  - subject presentation

- one **seminar** per week, two hours each ................................. 2 SWS
  - subject consolidation
  - practice discussion

- computer **practice** \( N \) hours per week, \( 0 < N \leq 164 \) ................. 0 SWS

Achievement Control

- **practice**
  - pass ....................... in case of successful elaboration of all exercises
  - consultation ............. in case of unsuccessful elaboration of one exercise
  - fail ........................ otherwise, or enjoy ...

- examination on lecture and seminar stuff

Academic Staff

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Suggested Reading


