TDDD56: Multicore and GPU programming
CPU part: General information

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Today

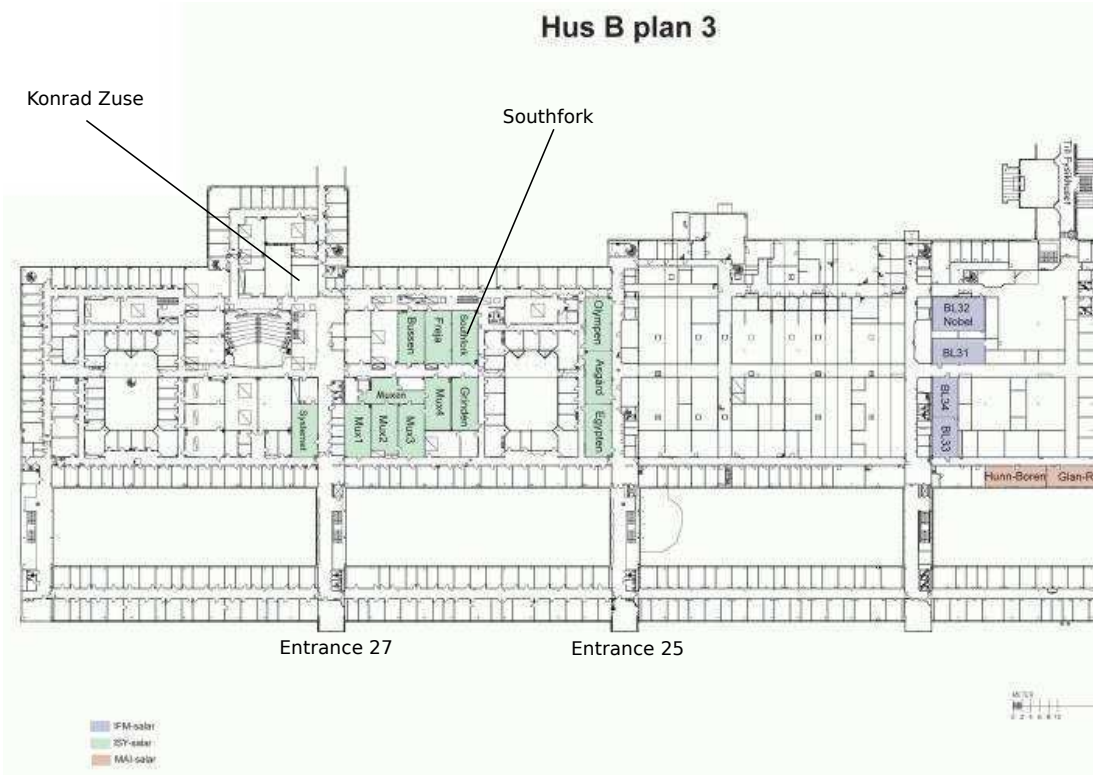
1. Organization
2. The lab room
3. About CPU labs

General information: registration

- Register to webreg before Wednesday, October 31^{st} (tonight)
  - You may loose laboratory opportunity
  - After deadline, contact me to get place in labs
- You must form a group of 2 and work together
- Attendance is mandatory
- You need a student account in the department where your group has labs
  - Fill the account request form passing in class
- Deadline for CPU labs: December 6^{th}
  - All your labs must be demonstrated and approved by this day

General information: the lab room

- Lab rooms:
  - Group A: southfork (ISY)
  - Group B and C: Konrad Zuse (IDA)



- ISY: http://www4.student.liu.se/map/index.pl
- IDA: http://www.ida.liu.se/department/location/search.en.shtml

General information: CPU labs

- Not easy lab work
- Objectives:
  - Learn about some multicore programming challenges and solutions
  - Acquire and experience autonomy at work: find documentation, investigate problems, make design choices.
- Activities:
  - Load balancing issues, lock-free synchronization, pthread and C practice

Lab demo

- Optimize assessement time
  - Prepare your description before lab demo: problem statement, the solution you provide, your assessement method, your observations and results, your conclusions
  - Pretend the lab assistant does not know anything about the lab, skeleton or scripts
- Motivate your design choices, including measurements
  - Default values in skeleton or helper scripts are not necessarily the best
  - Why do we use 4 cores? 8 cores?
- Work in autonomy, be creative and don't wait for explicit content directions
- Discuss problems and solutions between groups
- Be convincing in your statements, use supporting data from measurement