Implizite Situationserkennung

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Implicit situation awareness

Project focus

- Develop application for **sensing** situations based on **link quality** between distributed wireless nodes
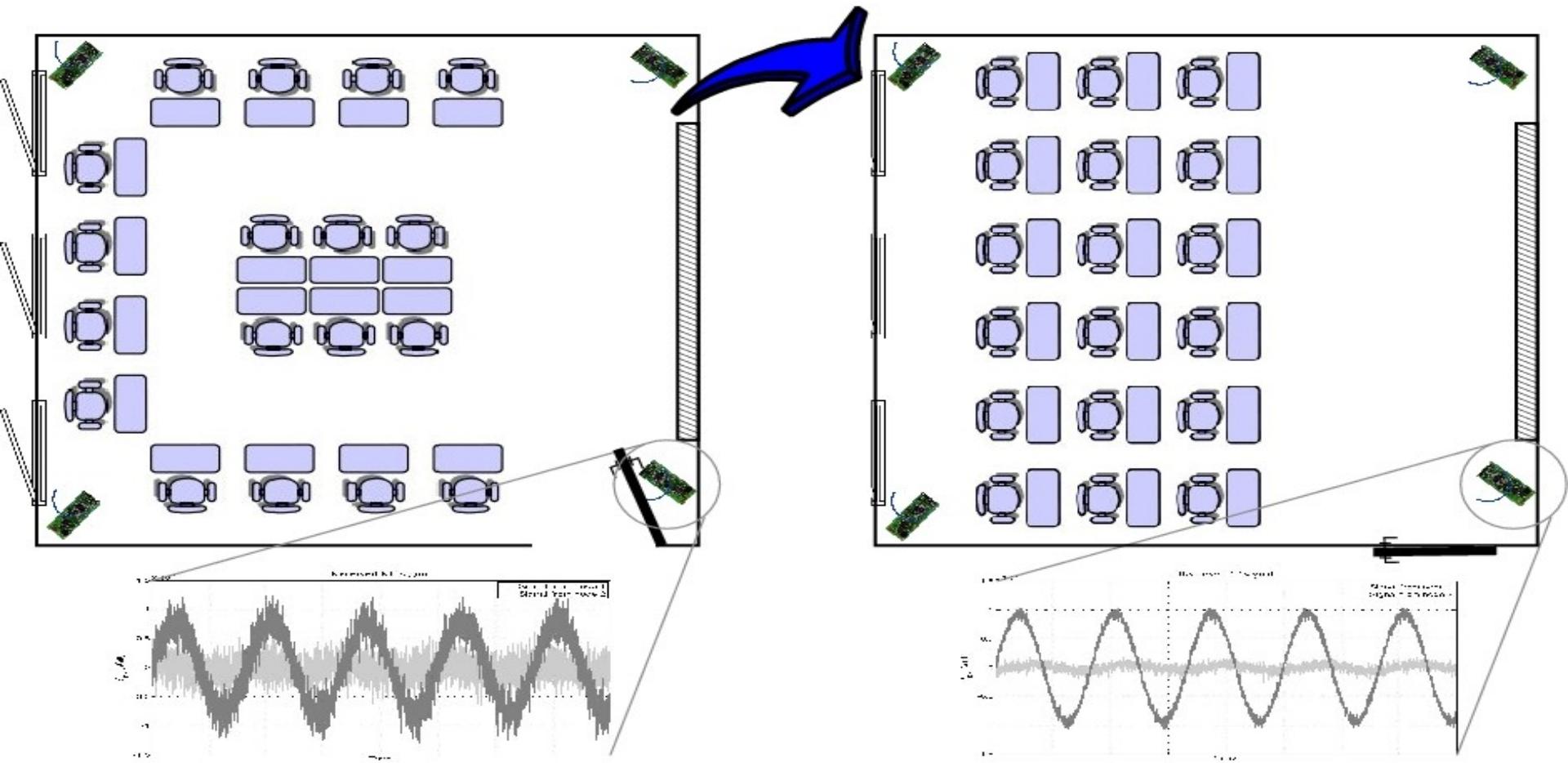
USRP software radios

The Universal Software Radio Peripheral (USRP)

- Communication interface controlled by standard PC
- USB connected
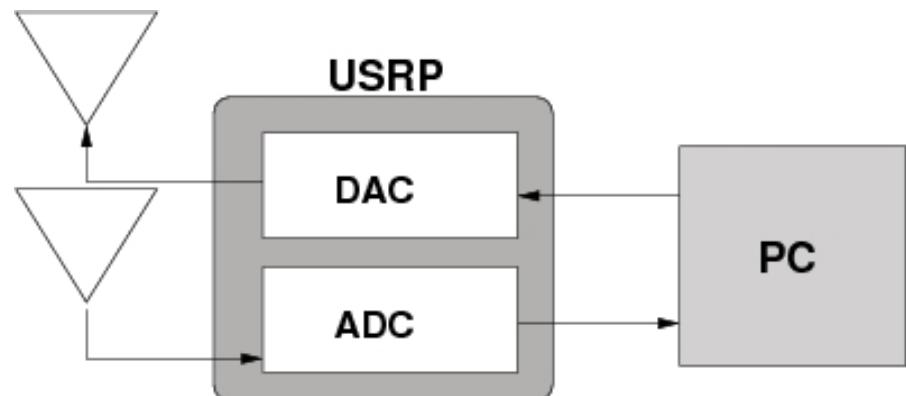
- Hardware:
    - Altera Cyclone FPGA
    - Four A/D converter (12 Bits/sample), sample rate 64 MegaSamples/sec
    - Daughterboads for various transmit/receive frequencies

GNU Radio Companion

Workbench to create signal processing flow graphs

- Preconfigured signal processing blocks available
  - Signal sources/sinks
  - Modulation schemes
  - Software scope
  - Filters
- Blocks dragged to workspace
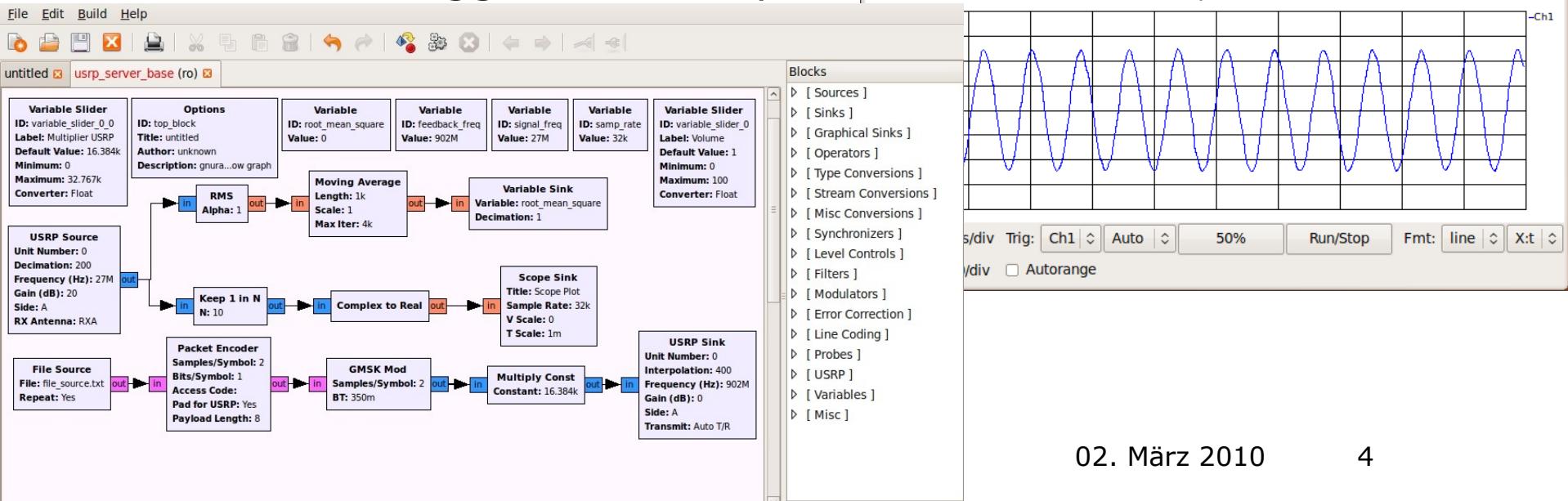
Python

Python code from the GRC

- GRC creates python code from signal-flow-graphs
- Further program logic added in Python
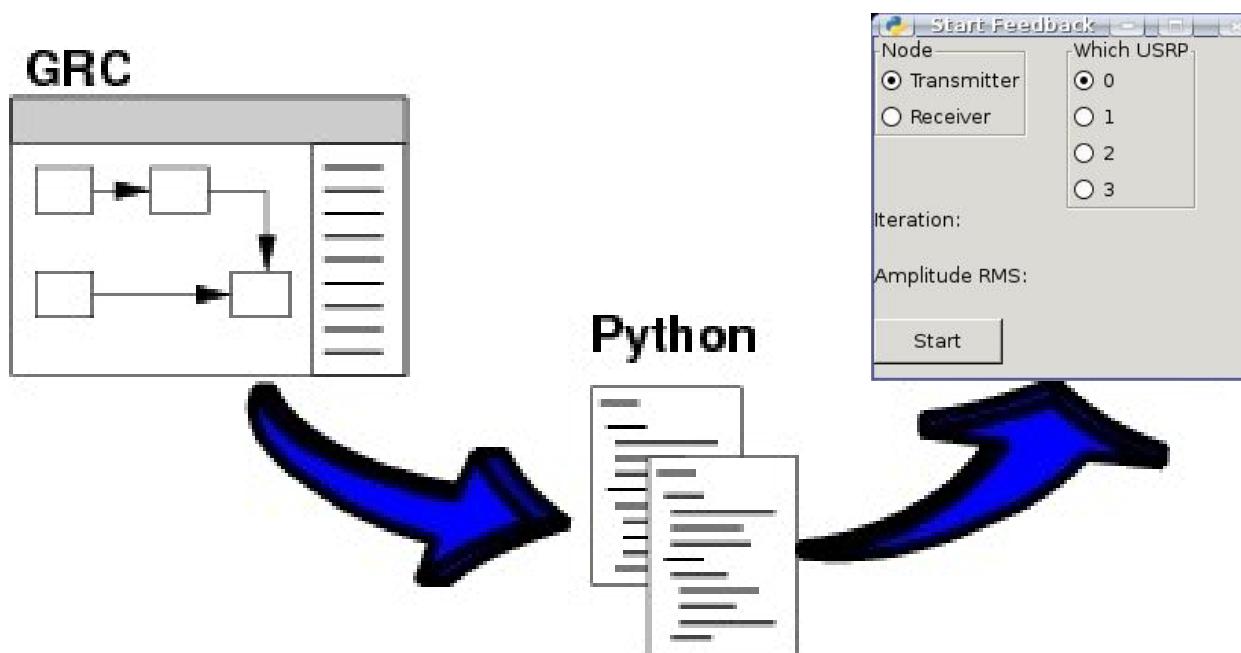
Questions?

Thank you for your attention.