

Status of DAQ and DSP-Code



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Testbeam Meeting

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- Overview
- Current Status
- Conclusions



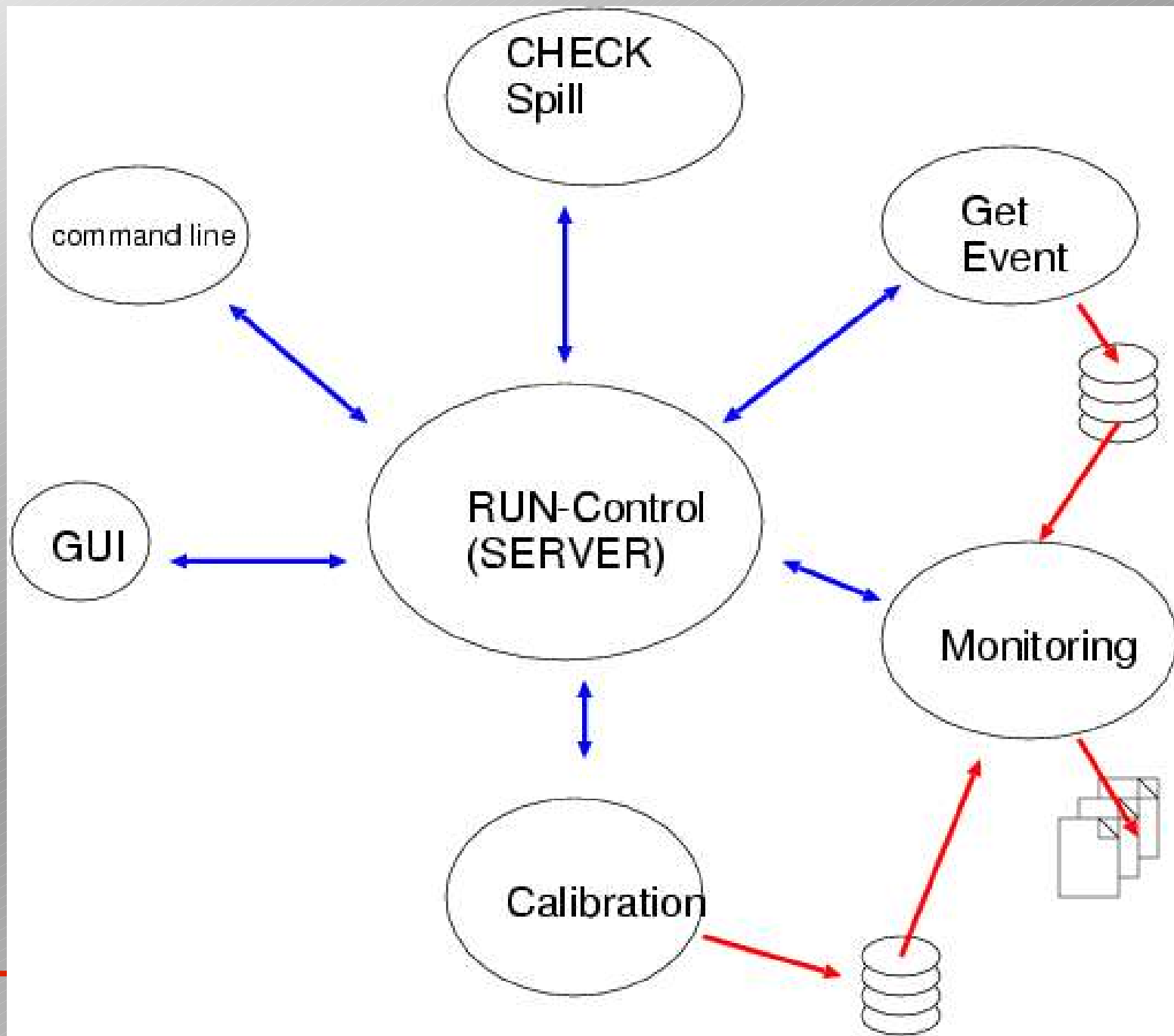
Overview

- DAQ has to take care of:
 - ♦ Event taking
 - ♦ Calibration
 - ♦ Monitoring
 - ♦ General situation (are we Onspill or Offspill)
- Event Taking is split in different parts
 - ♦ via AMSWire (TDRs, Guidoboard, Lin's Triggerbox)
 - ♦ via CAMAC (Cherenkovs, overall Trigger)
- Monitoring should be performed only offspill
- Calibration on a regular basis at start of run (if needed also at end of run), runs are changed every 30 minutes actually (adjustable)



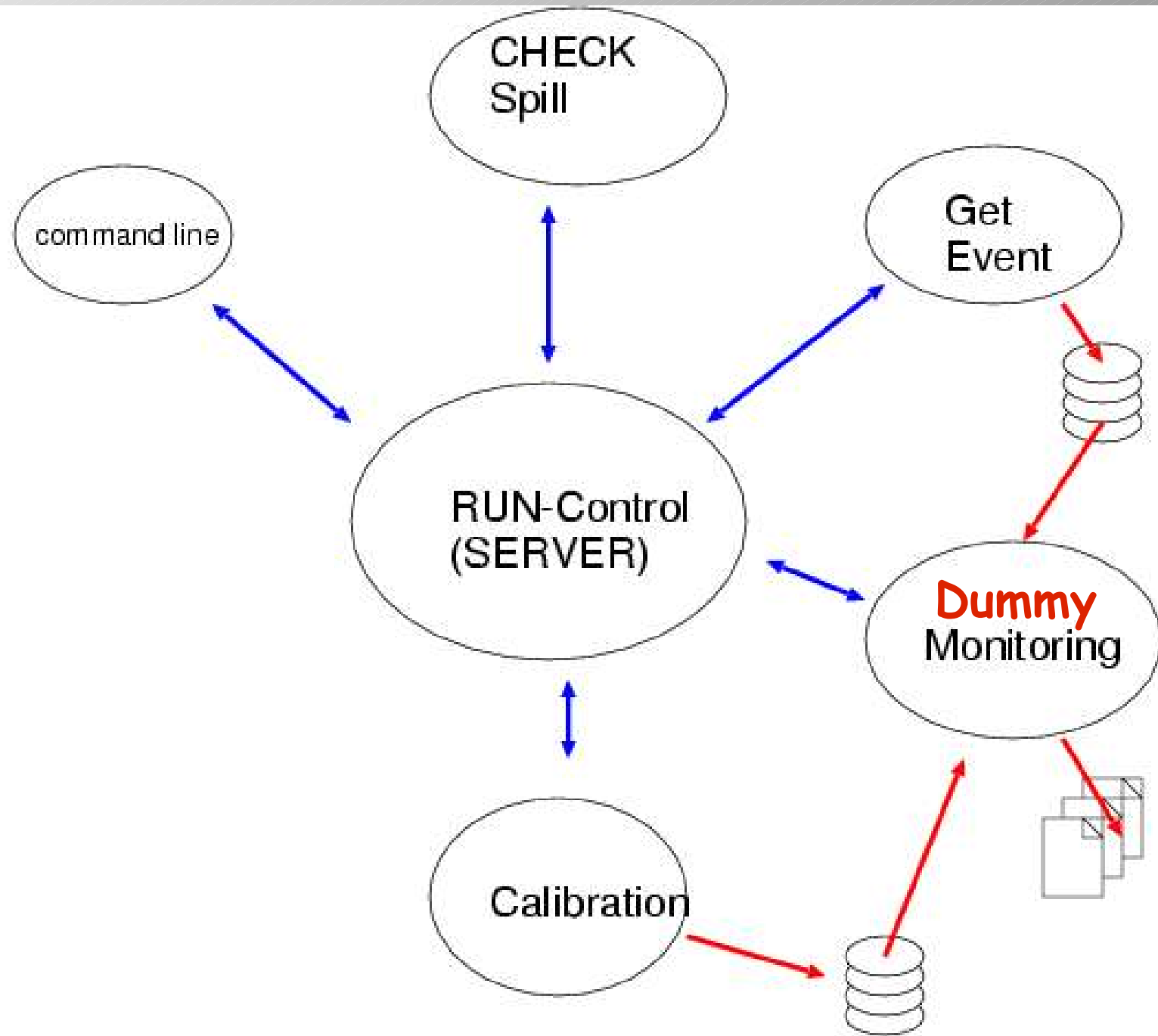


Overview - A Graphical View





Overview - Actual Status DAQ





Overview - Actual Status DSP

- Calibration-Code for DSP finished last week:
 - ♦ Sigma raw, sigma final calculation
 - ♦ Flags calculation (Noisy, Dead channels)
 - ♦ Common noise with high sigma algorithm
 - ♦ Code still needs some further tests
- Event Building still needs work:
 - ♦ Clustering with more strips is implemented (for now always +1 on both sides for further studies)
 - ♦ Common noise from calibration needs to be migrated to event building as well (cut & paste + testing)
 - ♦ Fixed cut in event building needs to be replaced with variable sigmas from new calibration (1 line of code -> 2 lines)





Outlook & Conclusions

- DAQ will grow to the final system during this week (together with the setup of the final electronics)
- This will include a simple basic monitoring. Hopefully Philipp will help me to improve on that one starting from next week)
- DSP code should be finished in the next 2 days, then heavy testing on the 'real' system if possible with cosmics during next weekend
- Data format is **still not final!** - I need a full system to define that (end of this week, hopefully)

