



# Plans for Slow-Control



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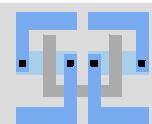
Testbeam Preparation Meeting

DESY

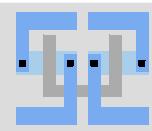
09./10.04.2013

# SC Interfaces to be used

- DHH+JTAG chains: IOC in preparation.
- ONSEN: IOC in preparation.
- PS: IOC in preparation.
- NSM: IOC in preparation.
- (FOS?: IOC in preparation)
- (Other env. sensors?)
- Cooling: very few PVs exported from PVSS slow-control to EPICS.



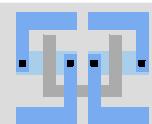
- Only one slow-control network for both detectors.
- PVs can easily be shared, if communication is required.



- Use the testbeam (and its preparation phase) to also test
  - Automatation with state machines
    - e.g. PS ramp-up, emergency shutdown on cooling failure.
  - Alarm System
  - PV archiver
  - Central configuration storage („config DB“)
- Common problem: More and more PVs and configuration data to be
  - collected,
  - matched between „software“ and „hardware“,
  - put in the corresponding config files.
- Needs some software support.
  - Closest thing available for EPICS/CSS: **DCT**.

# Monitoring / Event Display

- Actual data collection preferably in basf2 framework.
- Export of aggregated data to CSS for display
- The monitoring application should offer a web-based service to request the desired data.
- Interface not so obvious:
  - basf2 uses ROOT types.
  - ROOT data cannot easily be interpreted from Java applications.



- Some options for the data interface:
  - Find/write a ROOT data reader for Java. Needs to support „basic“ types: TH\*, TTree.
    - How to handle interaction?
  - Export data in another format.
    - display, zoom, filtering, etc.
  - Export precomputed images.
    - existing library?
  - Use the new JavaScript-based ROOT file reader from within the CSS webbrowser. Performance, JavaScript-Support?
- All of the above also needs to be considered for the Event Display.
  - Plus the possible complications of 3D.

Thank you!