Slow Controls Conditions Data
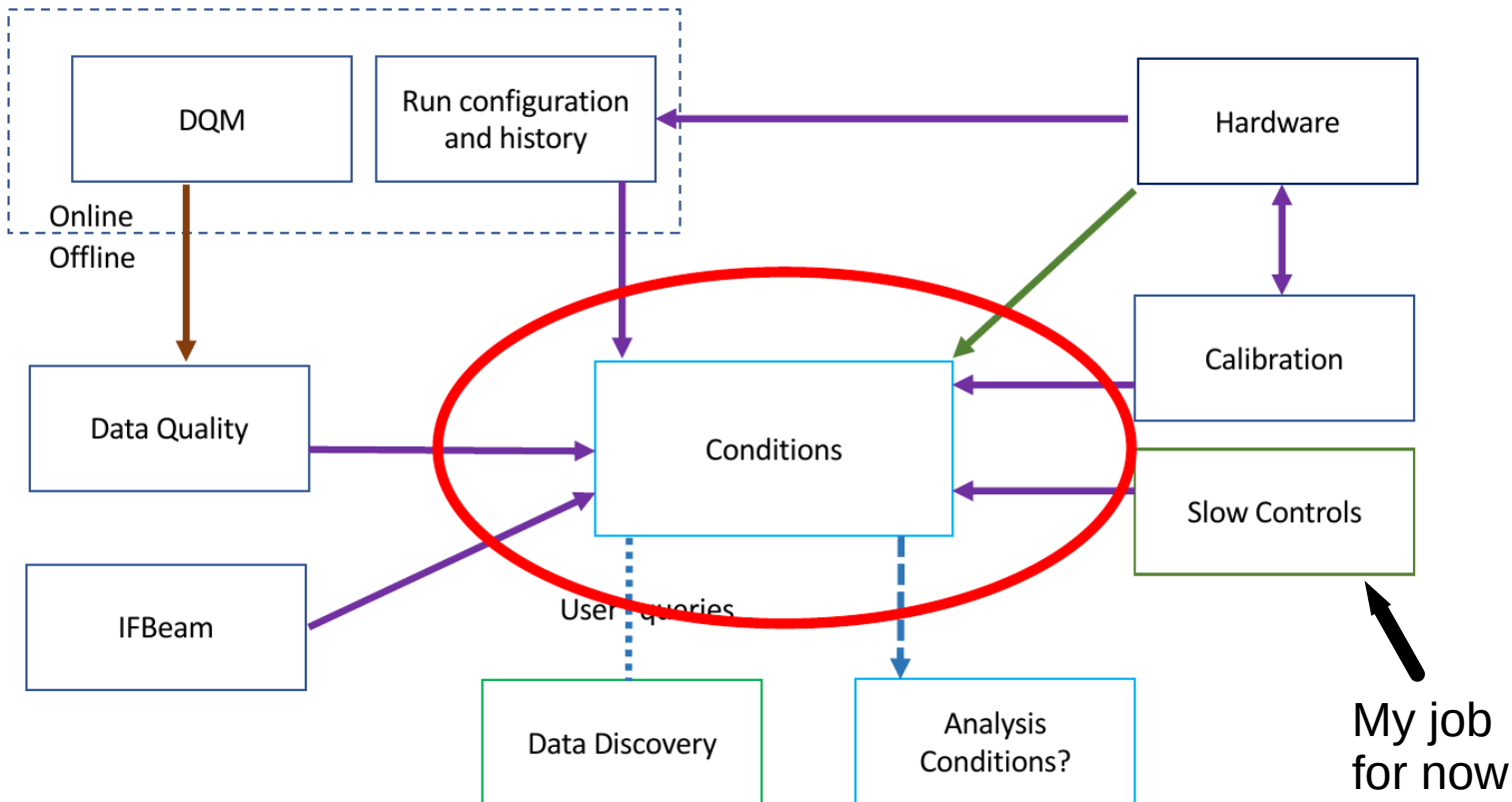
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@BrookhavenLab

Introduction

- Started postdoc position with BNL in November
  - Will work on protoDUNE conditions database for now
  - Use protoDUNE as testing ground for DUNE
  - Me: Slow Controls, Ana Paula (CSU): Run config, IFBeam

Slow Controls (SC)

- Detector Control System (DCS) records detector-related meta data
  - E.g. LAr temperature & purity, high-voltage, ground impedance
  - Indexed by time stamp & stored in DCS-DB ('SC archive')
- Problem: raw data written w/ very high granularity
  - Higher granularity than needed for offline processing

From Manuel J. Rodriguez
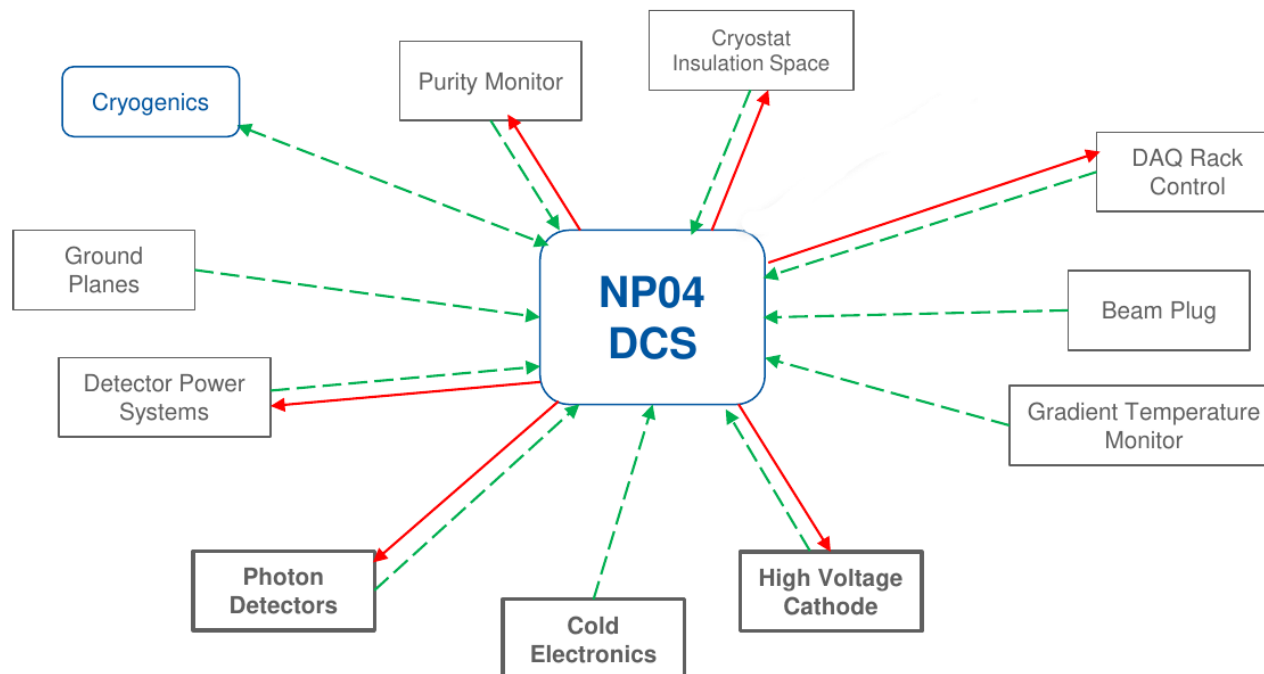
DCS-DB rest API

- Got in touch with Roland Sipos
  - Pointed me to the code base
  - No access to DB yet, only browse through code
  - Meet with him again (tomorrow morning)
    - Set up a VM, create username + pw

- 'Sensors' defined via config files
  - 63 'groups' of sensors
    - More or less obvious naming (e.g. 'cryostat' vs 'saleve')
    - 2536 sensors in total with technical names

My Next Steps

- Start using API to access DCS-DB
- Continue discussion with DRA team (and Ana Paula)
  - Gauge what DCS data (and at what granularity) is needed for offline processing

- Reproduce chain from raw to reconstructed protoDUNE data
  - Identify accesses to conditions data
    - Already found some, more are hiding!

Thank you for your attention