# **DAQ** and Trigger

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The HPS experiment data acquisition (DAQ) handles the acquisition of data for the three sub-detectors: the SVT, ECal and the Muon System. HPS employs two DAQ architectures: the SVT is readout with Advanced Telecom Communications Architecture (ATCA) hard- ware while the ECal and Muon System use VXS based hardware. The trigger system receives input from the ECal and Muon System, and distributes a trigger signal to all detector sub- systems to read out a selected event.

ROC ECAL1 ROC ECAL2 L1 TRIG L1 TRIG ROC MUON1 L1 TRIG EVENT BUILDER WORKSTATION NETWORK NETWORK 4x1 GB 10 GB 1 GB SWITCH ROUTER LEVEL3 WORKSTATION ROC SVT1 10 GB EVENT RECORDER WORKSTATION 10 GB RAID/FILE SERVER 10 GB UPLINK TO JLAB COMPUTING

# Components:

- CODA
- SVT DAQ
- Flash ADC
- Trigger

#### Documentation:

- CODA Documentation
- Existing 1-bit trigger
- Specifications for FADC-based clusterer
- FADC firmware and data format

## Papers:

### Talks:

• Heavy Photon Search Electronics, DAQ, & Software (G. Haller)

## Subtopics: