

SBS DAQ status

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Outline

- Subsystems status
 - Shower
 - HCAL
 - Hodoscope
 - Grinch
 - LHRS
 - Scaler / Beamline / Helicity
 - GEM
- Full DAQ
- Remaining tasks
- Missing items
- Conclusion

Shower

- Configuration
 - 1 VXS crate, SD , TI
 - 16 FADCs
 - 1 F1 TDC
- HV : up
- Cabling
 - 15 bundles left to be connected
- CODA
 - VME CPU booted
 - CODA config ready

HCAL

- Configuration
 - 288 channels
 - 2 VXS crate, SD , TI
 - 18 +1 FADCs
 - 5 F1 TDC
 - 2 VTPs
- HV : up
- Cabling
 - Complete
 - Need check /adjust different PMT delays
- CODA
 - VME CPU booted
 - CODA config ready

Hodoscope

- Configuration
 - 100x2 channels
 - 1 VME64X crate, TI
 - 4 V792
 - 2 V1190 TDC
- HV : connect this week
- Cabling
 - On going
- CODA
 - VME CPU booted
 - CODA config ready
 - Need setup cosemics trigger
 - Need setup ADC gate

GRINCH

- Configuration
 - 550 channels
 - 1 VXS crate, SD, TI
 - 4 V792
 - 5 VETROC
- HV : up
- Cabling
 - 50%
- CODA
 - VME CPU booted
 - CODA config ready
 - Need setup cosmics trigger
 - Need setup ADC gate

LHRS

- Configuration
 - S0 (2), S2(32), Cerenkov(10), PRL(68), A1 (26) = 138 FADC channels = 10 FADCs
 - 1 VXS crate, TI, SD
 - 3 Fastbus crates
 - Raster/BPM 1 FADC
 - Helicity SIS3801
- HV up
- Cabling
 - done
- CODA
 - VME CPU booted
 - CODA config ready
 - Taking cosmics
 - Need connect to SBS TS with fiber (part arriving this week)

SBS scaler crate

- 1 VME64X crate, TI
- 2 SIS3801
- 2 Jlab discriminator
- 1 JLAB FADC for raster/BPM

- CODA
 - CPU up
 - Steve's server setup
 - Need to add to CODA readout

GEM Bigbite

- 22 MPDs in 2 VME crates
- 1 VXS crate
 - 1 VTP
 - 1 SSP
 - 5 Optical to VXS
- HV : MPOD setup
- Cabling : done
- CODA
 - CPU up
 - CODA config setup
 - VTP readout tested quickly, waiting for all MPD/APV to be working to test
 - SSP readout setup for testing

GEM SBS/Gen RP

Status of the electronic items for GEn-RP experiment

Items	Needs (10 UVa GEMs)	Needs (2 INFN GEMs)	In hands (UVa GEMs)	In hands (INFN GEMs)	Spares	Missing?	Need repair	promised	Ordered	Comments/location
APV cards	880	108	800	All		80	15		NL: 110	EEL 124 and INFN lab
MPDs	70	8	68	8		2	7	MK: 2	NL: 15	EEL 124 and INFN lab
12-slot BP	40	N/A	38	N/A		2	6		NL: 10	EEL 124
5-slot BP	80		80		4	0	3			EEL 124
VME (St)	3	1	3	1		0				EEL 124 and INFN lab
Controller	5	2	5	2		0				EEL 124/INFN lab
VTPs	2	1	2	1		0				Hall
VXS	2	1	2	1		0				Hall
TI	2	1	2	1		0				EEL 124/INFN lab
CPU	2	1	2	1		0				Hall
SD	1	0	1	0		2				

SBS GEM Gen/RP

- 78 MPDs
- 4 VME crates
- 2 VXS crates
 - TI, SD, VTP (HCAL)
- Cabling
 - Network
 - Fibers
- CODA
 - Just adapt BB readout adding crates

Full DAQ

- CODA 3 setup on ADAQ1
- TS crate setup
- All crates besides LHRS connected to TD
- Will test multicrates after all detectors done with checkout most likely will run Shower Hodoscope and GRINCH together for cosmics
- 10 gigE adapter setup for VTP

Full DAQ

- CODA 3 setup on ADAQ1
- TS crate setup
- All crates besides LHRS connected to TD
- Will test multicrates after all detectors done with checkout most likely will run Shower Hodoscope and GRINCH together for cosmics
- 10 gigE adapter setup for VTP

Full DAQ

- TS 16 inputs
 - T1 : Shower analog
 - T2: Shower digital
 - T3: HCal analog
 - T4: Hcal digital
 - T5: coincidence Shower sums / HCAL sums
 - T6 : cosmics trigger BigBite
 - T7 : cosmics trigger HCAL
 - T8 : LHRS trigger
 - T9 :103.7k kHz clock

Remaining tasks

- Cabling
 - Beamline / Helicity / RF to SBS weldment (August 25th)
 - Fiber to LHRS (August 20th)
 - Beamline FADC readout SBS (August 23rd)
 - Scaler cabling
 - Portserver / reset setup (August 23rd)
- EDTM / coincidence trigger (August 30th)
- VTP GEM readout full detector
- DAQ rates tests

Missing items

- Must GMn
 - Fiber extension HRS TI (August 13th)
- Must Gen/RP
 - 2 MPDs
 - 80 APVs
 - 2 SDs
 - Fiber extension (August 13th)
- Like
 - 8 FADC for Hodoscope / GRINCH calibration

Conclusion

- All detectors DAQ ready for cosmics
- Some cabling to be done in next few days
- VTP readout with 10 gigE test on small subset of MPD
- All items in hand for GMn
- Some items on order for GEN/RP