

STGC DAQ & Readout Status

not just VMM Readout Integration

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ROB & FOB Readout for STAR in the lab

- we have 1 ROB at BNL and I need to implement
 - fiber \leftrightarrow STAR_DAQ interface
 - trigger interface
 - work done but needs testing
- once testing complete on BNL's end we send the code to Feng
 - he implements it in his firmware, returns to me, I load it in my ROB
 - we iterate until we can trigger, readout, configure VMMs and send VMM data to STAR DAQ PCs
 - at this point we can generate "formal" STAR DAQ data and pass it to software folks!
 - Feng et al: we need to know the data format of the data chunk sent to DAQ!
 - and also the data format of the configuration data passed from DAQ to ROB!
- BNL is expecting 1 FOB
 - when?
- Tim's power supply tested successfully on the ROB
 - will also be done for the FOB

Clean Room Plans & Status

- 2 tasks will be done in the Clean Room
 - verification, commissioning & Q&A of the 60x60 STGC TPX electronics **prior to installation in STAR**
 - testing of the new ROB+FOB electronics using the 30x30 module (later)
- DAQ system status
 - PC works and ready (“lx-cr.daq.bnl.local”)
 - same PC for both tasks above
 - need readout card for ROB (“TEF card”) installed in the PC (Mike, TL)
 - Trigger unit (TCD) configured & working (“tcd-cr.daq.bnl.local”)
 - need to check cables & fibers (should be there...) (Bob Scheetz)
 - need to find/check PS for TPX electronics (should be there...) (Bob, Prashanth)
 - need FEE/FOB adaptor cards (Christian, Tim) for the FOB tests

STAR DAQ Status for the FY21 Run

- 2 phases:
 - 60x60 with TPX electronics
 - 60x60 with new electronics (much later)
- DAQ PCs, fibers, trigger cables, TCD board, TCD distribution -- **all installed and tested last week**
 - need to install the TPX electronics power-supply (Bob)
 - or move it from the Clean Room once done with Q&A there
 - need to install the ROB/FOB power-supply (Tim)
 - later...

Schedule

	Lab	Clean Room (TPX)	Clean Room (VMM)	STAR STGC (TPX)	STAR STGC (VMM)	STAR STGC (final)
DAQ PC	daqst3	lx-cr	lx-cr	stgc-old	stgc01	stgc01-stgc04
Trigger Distribution	done	done?	done	done	done	partly done
Fiber(s)	done	done?	done	done	done	partly done
PS	done	Feb 1	Mar 1	Feb	Apr+	Jul?
RDOs/FEEs	N/A	Prashanth?	N/A	from Clean Room	N/A	N/A
ROB	working on firmware (Feb 1)	N/A	once firmware complete (Mar 1?)	N/A	# not decided	16 pcs (Jul?)
FOB	waiting for arrival	N/A	once firmware complete (Mar 1?)	N/A	# not decided	96 pcs (Jul?)

Final Remarks

1. ROB & FOB firmware and readout software development for VMM will be done in the lab
 - a. 1 ROB, 1+ FOB
 - b. includes the power-supply testing and development
2. Clean Room setup is getting ready (Feb 1)
3. STAR setup is ready