

Status of E906/SeaQuest

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UIUC

For the SeaQuest collaboration

Status

- Did DAQ upgrade during the summer shutdown.
 - Still having trouble getting it ready for taking data with all elements.
 - New decoder is needed to see the new events.
- Took half an hour data for decoder debugging
 - Using whatever integrated elements at the time (Friday).
- DAQ work
 - The system can work if configured the same way as in the past.
 - Lack of center part of St. 1 chamber
 - Integrating new ROC's into the system
 - Two more VME crates, CPU's, TI boards and 14 TDC cards, plus cables.
 - Hit a software problem in creating the new configuration in the MSQ database of CODA.

- New TDC data format issue is discovered
 - Corrupted data format is found.
 - Happens only when the CPU is based on Linux, which is faster than MVME ones.
 - Always on the 7th TDC at the most right side of the crate.
 - “eventID” is not propagated properly to the ARM code
 - But at the FPGA side, it looks OK as far as we have observed.
 - Wave form of signal propagating on the backplane is not good enough(?)
 - Copying the eventID from the FPGA memory to ARM code can patch up the problem?

- Target work
 - Pumps
 - All refurbished and checked
 - Valves
 - A release valve was broken and replacement bought, which is much heavier than old one.
 - Need new vent manifold to hold. Which is now being made.
 - All the other valves are being re-installed.
 - Calibration will come later.
 - Target coldhead and refrigerator 30K hour maintenance was performed.
 - Pressure sensors are to be re-installed and calibrated.
 - Vacuum
 - H2 vacuum has been tested.
 - D2 vacuum test is being prepared.