

MicroBooNE

Status

REPORT

All Experimenters' Meeting

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March 9th, 2015

Cryogenics

- ✓ *The cryogenics system is a crucial part of MicroBooNE and there are some steps we need to complete before we can start filling the detector with argon.*
- ✓ *All piping pressure and leak tested.*
- ✓ *Cooldown pipes are purged and clean. Purging of argon pipes is going to be completed today / tomorrow.*
- ✓ *Cryostat purging starts mid-week.*
- ✓ *Preliminary tests of controls, alarms and interlocks are completed. Interlocks will still be physically tested once equipment is running.*
- ✓ *Cooldown foreseen to start mid March and filling will start in April.*

No better place than Chi-cryo-cago for a LAr detector...

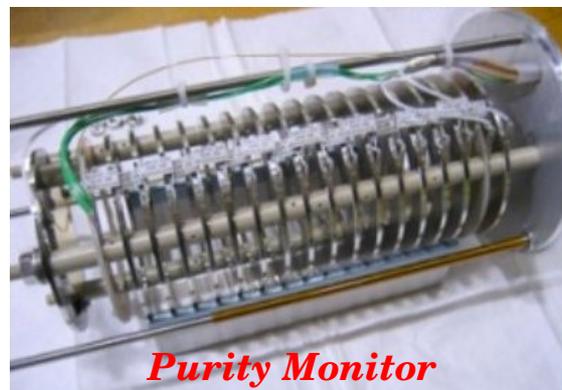
Purity



- ✓ *Purity monitor is a custom device to determine the electronegative contamination level of the LAr for concentrations below the standard gas analyzers' sensitivity.*
- ✓ *An in-line purity monitor has been already tested and installed.*
- ✓ *Two purity monitors, to be installed inside the cryostat on both ends of the TPC, have been successfully tested both in vacuum and argon gas at PAB.*
- ✓ *Insertion of the two purity monitor foreseen for this week.*



03/09/2015



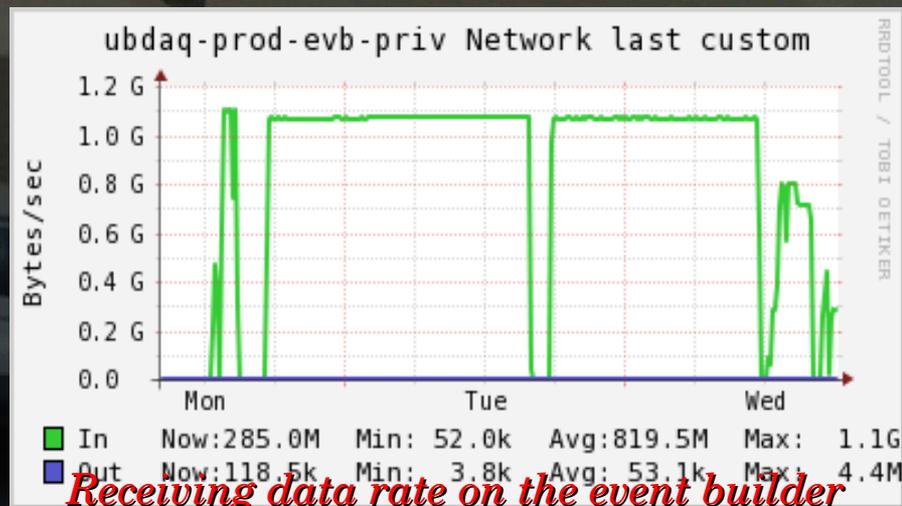
AEM - Roberto Acciarri



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THE DAQ

✓ *Successfully exercised uncompressed readout of all crates (10 SEBs total) up to 5.66 Hz (~ total network bandwidth). That well exceeds the total data rate we will expect to take.*



✓ *After full-system tests with DAQ, the attention is focusing onto taking data from the detector: warm noise measurements of the electronics from the whole detector at a few different gain and shaping settings done today and further noise data acquisition during wire bias tests later this week.*

✓ *Test of data throughput with the Huffman compression turned on is ongoing.*

✓ *System tests of the online monitoring system foreseen during noise runs.*



Monitoring

- ✓ *Slow monitoring is in a mature state. All sub-systems (except laser) have monitoring and controls setup.*
- ✓ *For each sub-system, shifter-level GUIs (only monitoring), non-expert level GUIs (monitoring + system reset control) and expert-level GUIs (monitoring + full control) are developed.*
- ✓ *A central monitoring GUI which links to custom monitoring pages for each sub-system is developed and currently in use by various sub-system users.*
- ✓ *Database infrastructure is in place and the history of all variables in the database are archived. This system has been especially useful during installation to track down many issues using archiving.*
- ✓ *In the last two weeks, voltage outputs of the power supplies for both PMTs and wire biases were tested using the GUI.*

Slow Monitor Control Overview

EPICS softloc heartbeat 



obrigado

Dank U

Merci

mahalo

Köszi

спасибо

Grazie

Thank
you

mauruuru

Takk

Gracias

Dziękuję

Děkuju

danke

Kiitos