

Status of Supermodule Production

Tom Dietel

WWU Münster

TRD Status Meeting — 24.09.2007

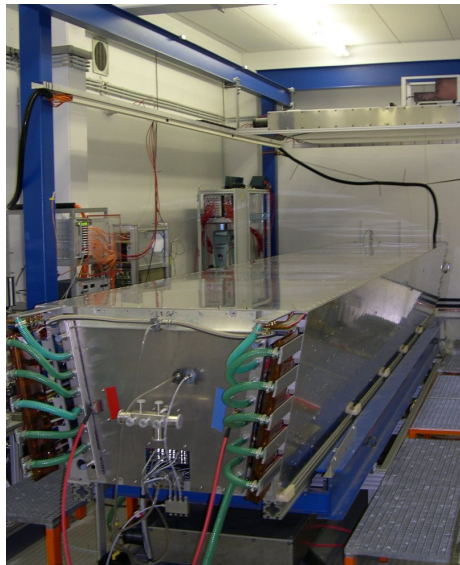
SM-III

SM-III is finished and ready for transport

- Pickup tomorrow 25.9.
- Arrival at CERN 26.9.

Total duration: 9 weeks since transport of SM-II

- Slow start after SM-II: need more experience
- Stability problem caused 2 weeks delay (faulty ethernet cable)



Preparation of SM-IV

Hull

- All parts delivered to Münster last week (20.9.)
- Power Bus Bars prepared
- One blue frame ready
- Assembly will start immediately after SM-III leaves Münster

Chambers

- Shipment of 30+2 chambers next Thursday (27.9.)
- Two “special” chambers
 - rotated back-panel: check for space conflicts in SM
 - HV problems: chamber is “hard to condition” (Matthias), needs conditioning software

High Voltage Control Software

HV in Münster controlled by Iseg program

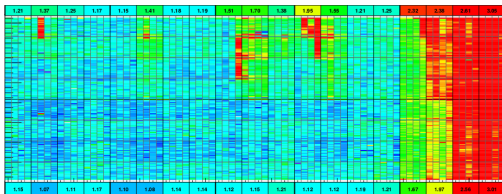
- No PVSS, no FSM
- Not very userfriendly
 - controls and monitoring takes 8 screens
 - no grouping of channels
- Error prone (e.g. current limits are forgotten at power cycle)

Problem: “hard-to-condition” chamber

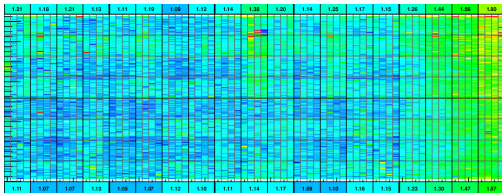
- Needs conditioning software
 - increase voltage if current drops below limit
 - decrease voltage if current exceeds high limit
 - continue until operation voltage reached
- Software not available for Münster / CERN setups
- Is current resolution (ΔI) of Iseg PS sufficient?

Noise Problems with Wiener PS

Noise in L4 with all Wiener PL512 power supplies:



Noise in L4 with Delta PS providing A3V3 L45:



Noise seen at elsewhere with Wiener PS? Only in Münster setup?

GTU and DAQ

GTU and DAQ now operational in Münster

- GTU was setup with lots of help from the KIP people
Thanks to Felix, Jan, Marcel, Dirk and the whole team!

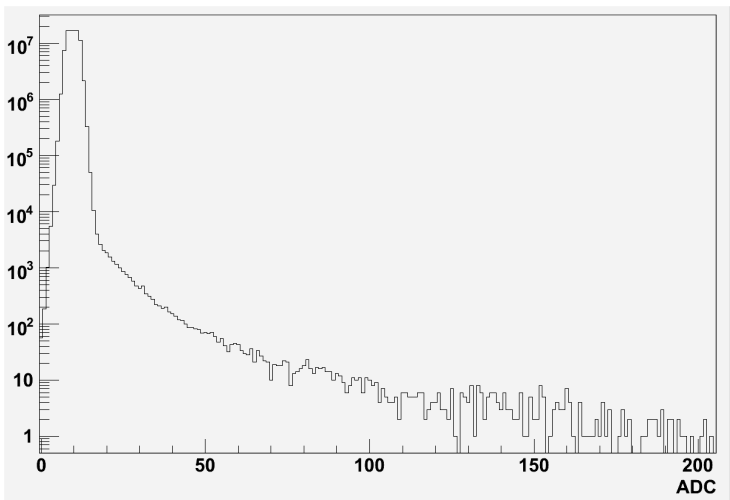
GTU Stresstest

- Full readout with SM, GTU, DATE
- No recording/validation of data
- Rate limited to 200MB/s (60 events per sec) by GTU → DATE link
- Stable for 5 million events / 15 TB of data

Cosmic data

- Collected 160 000 cosmic events, almost 500 GB of data
- Zero suppression should be aimed at for SM-IV
- Contact me for access to the data

ADC Spectrum



100 cosmic events taken with GTU