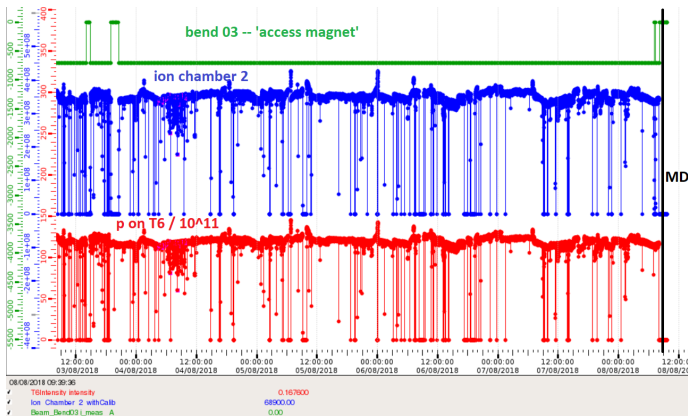


Weekly coordinator report (3. – 10. 8. 2018)

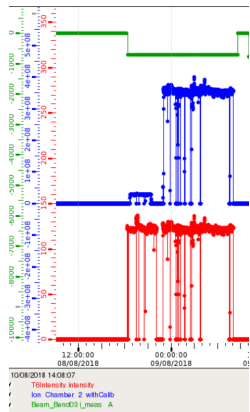
Jan Matoušek
University and INFN Trieste

10. 8. 2018, CERN





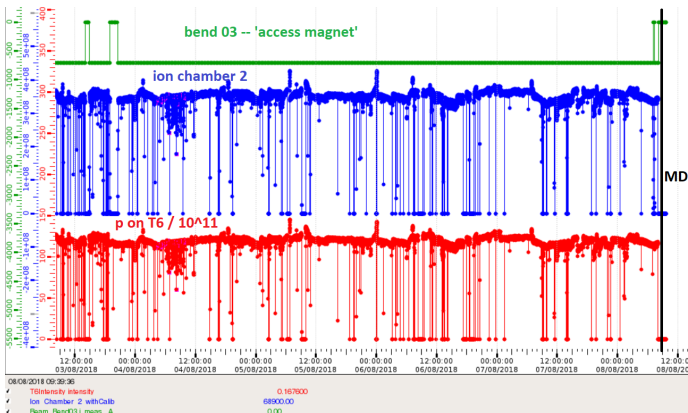
Before the MD.



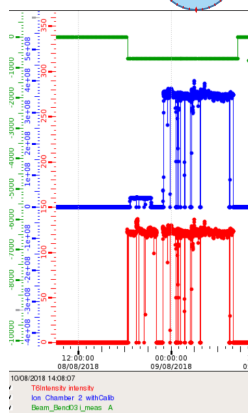
After the MD.

Beam

- Beam rather good (certainly better than last week!)
- Reasonably stable intensity $\approx 120 \times 10^{11}$ p/s on T6.
- Except few intensity spikes and the LHC-filling periods.



Before the MD.



After the MD.

Accesses

Fri 14:00

- Access during no beam,
- ECAL1 missing part fixed,
- RICH LV fans: fuse returned.

Fri 18:00

- RichWall sending almost no

Wed 7:00

- To restore DC HV (CAEN crate).

Wed–Thu

- Machine development.
- ...

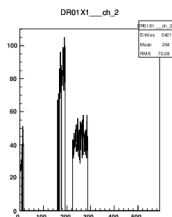


In general, no major problems!

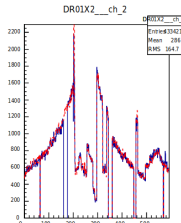
- Fri 18:00
- RichWall sending almost no data.
 - 1.5 h access, not solved,
 - after we took run 285023 without RW,
 - finally 2 guilty ports found and excluded,
 - fixed on Wednesday.

- Monday
- ECAL1 src id 624 100 % errors
 - LOAD → no config server.
 - pccofe23 needs restart, but that requires acces... → done on Wednesday.

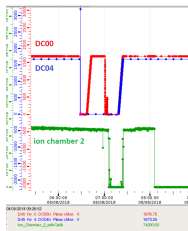
- Wed 7:00
- HV trip of DCs (or CAEN rebooted by itself),
 - DC04 not recovered → access, powercycled CAEN.



RW missing.



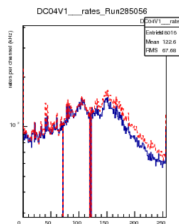
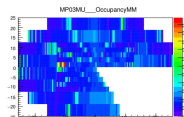
RW Fri-Wed.



DC00 and 04 HV.



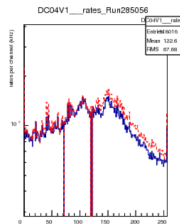
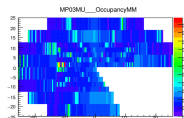
- **LOAD** of a detector ends in 'no config server' error.
 - if pccofeXX not reachable by ping (ping pccofeXX or check_daq), it probably should be powercycled.
 - **do not powercycle pccofe10 and 52!**
 - If in doubt, call the expert or ask experienced people around...
- **PMMs give errors and/or have data missing**
 - no errors, but missing data → stop & LOAD -ra,
 - error persists several spills → stop & LOAD -A,
 - I2C error → powercycle MM LV,
- However, please **do not powercycle LV of random detectors** if you are not sure about it!
- DSc, MWPCs missing cards or ports, usually cured by LOAD.



Watch the MTV and (be) cool!



- **LOAD** of a detector ends in ‘no config server’ error.
 - if pccofeXX not reachable by ping (ping pccofeXX or check_daq), it probably should be powercycled.
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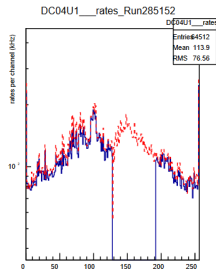
Watch the **MTV** and (be) **cool!**



DC04 missing part of plane,

DC05 time to time small % of errors that don't disappear after LOAD. They are from periferal region and can be ignored.

CEDARs frontend electronics problems (noise?), not working at all.



DC04

- in the beam tunnel – BMS06 cooling water,
- from the air-conditioning unit next to polarised target barracks.
- Both fixed on Wednesday by EN-CV (even if the tunnel was not their responsibility, but theresponsible was on holiday)



Water leak in the tunnel.



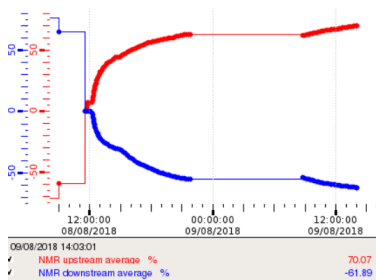
AC unit next to PT barracks.

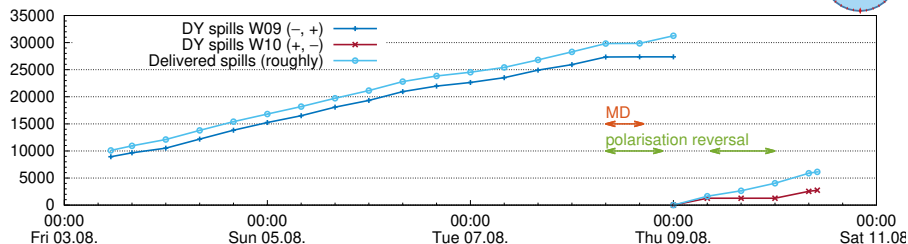


A light below.



- Target – measured and reversed the polarisation
 - Polarising Wed 11:30–21:30, continued Thu 8:45–00:00
 - Reached +74 % and –70 %.
- RichWall – 2 missig ports – FE cards exchanged.
- ECAL1 – pccofoe23 restarted.
- ECAL2 – changed HV bases.
- DAQ
 - cross-point switch installed to MUX03,
 - fast run start/stop procedure deployed.
- Wed 23:00–01:30 Veto tests
 - deadtime measurement at different beam intensities,
 - run with no veto applied to OT and MT.
- Thu 11:00 alignment runs
- Thu most of the day: trigger test runs with low intensity π beam taken while polarising.
- This way the tiime with long SC with 1 spill was effectively used!





Integrated number of good physics spills collected.

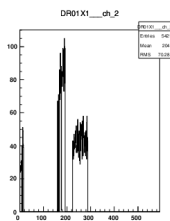
			Pol.	Good DY spills
W09: Wed 1. 8. 00:00 – Wed 8. 8. 8:00				
Wed 00:00	-	Fri 11:00	-+	8928
Fri 11:00	-	Sat 16:00	-+	4892
Sat 16:00	-	Sun 16:00	-+	4258
Sun 16:00	-	Mon 16:00	-+	3900
Mon 16:00	-	Tue 16:00	-+	2934
Tue 16:00	-	Wed 08:00	-+	2457
Total in W09			-+	27369
W10: Thu 9. 8. 00:00 – Wed 15. 8. 8:00				
Thu 00:00	-	Thu 16:00	+-	1270
Thu 16:00	-	Fri 11:00	+-	1488
So far in W10			+-	2758



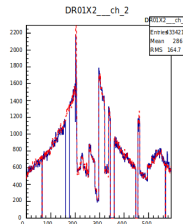
Thanks to all shifters and experts, good luck to Oleg!



- 14:00 – 14:57 Access during no beam
 - ECAL1 missing part fixed,
 - PA11 prob. cable connection touched,
 - RICH LV fans: found off, unplugged and without fuse?
- 18:00 RichWall went missing in cool and MTV.
 - 1.5 access, not solved.
 - after we took run 285023 without RW
 - 2 guilty ports found and excluded (one card problem – easy fix if there is no beam for 1 h, and one to be looked at on MD)
- night: no DSC info from CEDARs
(Christophe submitted a ticket, solved Mo 9:40).



RW missing



RW mostly back

DIP Manager			
Name	State	Heart beat	Action
DIP 7	HW ●	2018.08.04 03:50:58.552	Start Stop



- MTV and cool not getting data several times.
 - solved by CleanDAQ,
 - to go to "turned off" state might have been sufficient.
- During the night: DC05 timeout on port, could not be reloaded. **shift powercycled the pccofe, which should not be done**, fortunately it was OK.



- Basically everything OK...



- ECAL1 src id 624 100% errors
 - LOAD → no config server.
 - pccofe23 needs restart, but that requires acces...
 - postponed when there is no beam.
- Daq-Vme_Bms2 alarm in DSC – masked, will be looked at tomorrow.

Watch the MTV and (be) cool!

Common problems:

- PMMs give errors and/or have data missing
 - no errors, but missing data
→ stop & LOAD -ra,
 - error persists several spills → stop & LOAD -A,
 - no config server → powercycle pccofe15,
 - I2C error → powercyce MM LV,
 - other errors: try to take data and watch...
- DCs or othe important detectors give errors and/or have data missing
→ stop & LOAD -A



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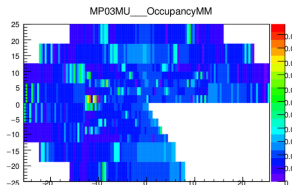
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MariposaTV - Online COMPASS data monitoring

Operator: [DSC] User number of errors: [0] Minutes

Detector	Detector	1st spill	2nd spill	3rd spill	4th spill	5th spill	6th spill	7th spill	8th spill	9th spill	10th spill
624	ECAL1	17.43	0.00	14.53	3.17	0.00	0	0	0	0	0
432	SPM	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0
822	SCAL	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0
180	PMW	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0
2	Monitor-T	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0
852	SC12L-139	0.13	24.00	24.16	0.00	0.00	0	0	0	0	0
820	SCAL	0.00	0.00	28.72	0.00	0.00	0	0	0	0	0
828	SCAL	0.00	0.00	18.53	0.00	0.00	0	0	0	0	0
826	SCAL	0.00	0.00	28.40	0.00	0.00	0	0	0	0	0
807	SCAL	0.00	0.00	338.22	0.00	0.00	0	0	0	0	0
830	SCAL	0.00	0.00	36.00	0.00	0.00	0	0	0	0	0
828	SCAL	0.00	0.00	16.48	0.00	0.00	0	0	0	0	0
821	SCAL	0.00	0.00	88.43	0.00	0.00	0	0	0	0	0
809	DCOS	0.00	0.00	70.65	0.00	0.00	0	0	0	0	0
880	DCOS	0.00	0.00	73.36	0.00	0.00	0	0	0	0	0
887	DCOS	0.00	0.00	70.65	0.00	0.00	0	0	0	0	0
886	DCOS	0.00	0.00	78.96	0.00	0.00	0	0	0	0	0
885	DCOS	0.00	0.00	84.16	0.00	0.00	0	0	0	0	0
884	DCOS	0.00	0.00	87.46	0.00	0.00	0	0	0	0	0





- ECAL1 src id 624 100 % errors
 - LOAD → no config server.
 - pccofe23 needs restart, but that requires acces...
 - postponed when there is no beam.
- Daq_Vme_Bms2 alarm in DSC – masked, will be looked at tomorrow.

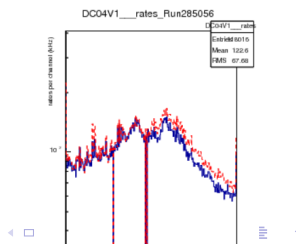
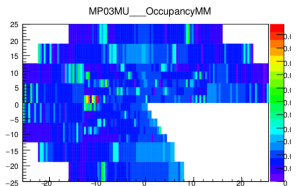
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 - other errors: try to take data and watch...
- DCs or othe important detectors give errors and/or have data missing → stop & LOAD -A

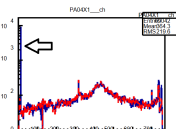
MariposaTV - Online COMPASS data monitoring

Source	Detector	1/Spill (%)	2/Spill (%)	3/Spill (%)	4/Spill (%)	5/Spill (%)	6/Spill (%)	7/Spill (%)	8/Spill (%)	9/Spill (%)	10/Spill (%)	11/Spill (%)	12/Spill (%)	13/Spill (%)	14/Spill (%)	15/Spill (%)
824	SCAL	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
432	SP	17.44	0.00	74.55	3.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
624	SCAL	0.00	0.00	13.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	PMM	0.00	0.00	114.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	Detector-V	0.00	0.00	82.50	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
182	SC121-139	0.13	24.00	24.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
420	SCAL	0.00	0.00	28.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
428	SCAL	0.00	0.00	18.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
426	SCAL	0.00	0.00	28.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
607	SCAL	0.00	0.00	338.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
425	SCAL	0.00	0.00	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
428	SCAL	0.00	0.00	16.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
421	SCAL	0.00	0.00	89.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800	DC05	0.00	0.00	70.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
808	DC05	0.00	0.00	73.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
807	DC05	0.00	0.00	70.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
884	DC05	0.00	0.00	78.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
886	DC05	0.00	0.00	84.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
884	DC05	0.00	0.00	87.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

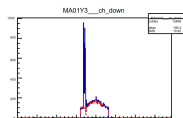




- 22:00 MW01 srcid 480 was giving 100% errors
 - LOAD -A → no config server!
 - pccofe18 not reachable by ping (useful: `check_daq`)
 - pccofe18 powercycle in DCS, LOAD -A pccofe18 (after consulting experts)
- PMM noise: disappears after LOAD
- PA04 and MA01 noise: persistent.
- Disks alarm (false).
- 7:00 HV trip of DCs → access, powercycled CAEN.



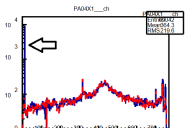
PA04X1



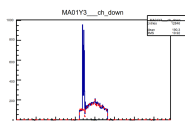
MA01Y3



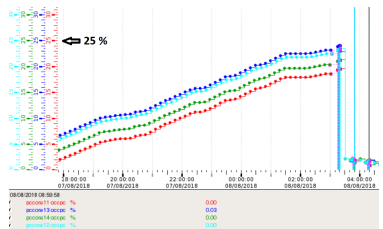
- 22:00 MW01 srcid 480 was giving 100% errors
 - LOAD -A → no config server!
 - pccofe18 not reachable by ping (useful: check_daq)
 - pccofe18 powercycle in DCS, LOAD -A pccofe18 (after consulting experts)
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- Disks alarm (false).
- 7:00 HV trip of DCs → access, powercycled CAEN.



PA04X1



MA01Y3

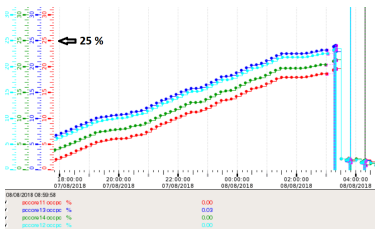
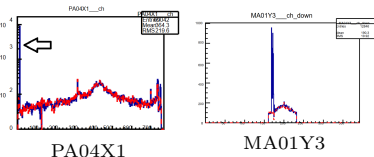


pccore disk occupancies (%)

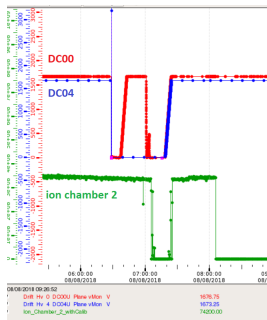
08/08/2018 08:59:58		
✓ pccore11 occpcc %		0.00
✓ pccore13 occpcc %		0.03
✓ pccore14 occpcc %		0.00
✓ pccore12 occpcc %		0.00



- 22:00 MW01 srcid 480 was giving 100% errors
 - LOAD -A → no config server!
 - pccofe18 not reachable by ping (useful: check_daq)
 - pccofe18 powercycle in DCS, LOAD -A pccofe18 (after consulting experts)
- PMM noise: disappears after LOAD
- PA04 and MA01 noise: persistent.
- Disks alarm (false).
- 7:00 HV trip of DCs → access, powercycled CAEN.



pccore disk occupancies (%)



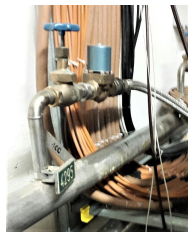
DC trip



- Target – measure and reverse the polarisation
 - it took 3 h to remove the ice,
 - now polarising until the evening,
 - to be continued on the morning...
- Water leaks
 - in the beam tunnel – BMS06 cooling water,
 - from the air-conditioning unit next to polarised target barracks.
- RichWall – 2 missig ports – FE cards exchanged.
- ECAL1 – pccofo23 restarted.
- ECAL2 – changed HV bases.
- DAQ
 - cross-point switch installed to MUX03,
 - fast run start/stop procedure deployed.
- veto deadtime measurement in the night
- CEDAR
 - cooling: input/output test.
 - To be done: treshold scan (if possible...) without and with beam.
- ...



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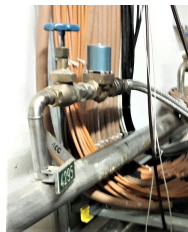
Tunnel



AC unit next to PT barracks.



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 - To be done: treshold scan (if possible...) without and with beam.
- ...



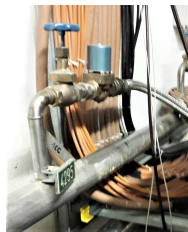
Tunnel



AC unit next to PT barracks.



- Target – measure and reverse the polarisation
 - it took 3 h to remove the ice,
 - now polarising until the evening,
 - to be continued on the morning...
- Water leaks
 - in the beam tunnel – BMS06 cooling water,
 - from the air-conditioning unit next to polarised target barracks.
- RichWall – 2 missig ports – FE cards exchanged.
- ECAL1 – pccofo23 restarted.
- ECAL2 – changed HV bases.
- DAQ
 - cross-point switch installed to MUX03,
 - fast run start/stop procedure deployed.
- veto deadtime measurement in the night
- CEDAR
 - cooling: input/output test.
 - To be done: treshold scan (if possible...) without and with beam.
- ...



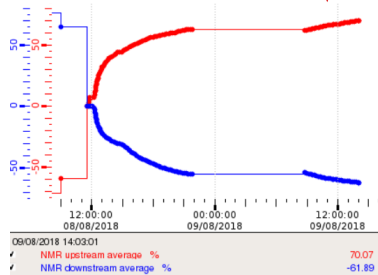
Tunnel



AC unit next to PT barracks.

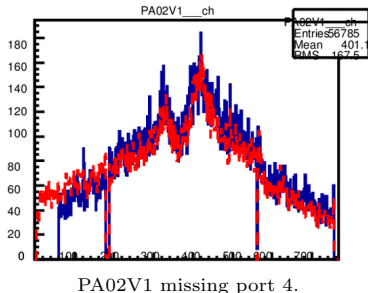
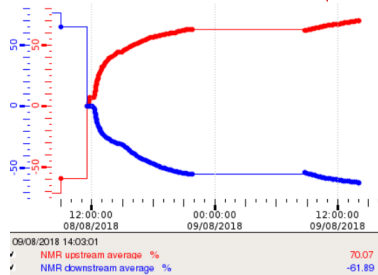


- Target – measure and reverse the polarisation
 - Polarising 11:30–21:30, continued 8:45–...
 - We have +71 % and –63 % now.
- Water leaks
 -
- 23:00–01:30 Veto tests
 - deadtime measurement at different beam intensities,
 - run with no veto applied to OT and MT.
- CEDAR – FE not ready, threshold scan not taken.
- Night:
 - PA02V1 2 ports missing in cool, later only 1.
- Day:
 - no beam 8:00–11:00, but we are polarising...
 - SciFi and scaler 100 % errors, LOAD didn't help, they are at pccofe15 → powercycled and solved.
 - 11:00 alignment runs
- Evening: Trigger test runs with low intensity beam (1361 spills) while polarising





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PA02V1 missing port 4.