Daily Meeting Minutes

# 2019-06-03 (from TC meeting)

* Half-Layer 2
  + Electronics rack completed
  + Cabling prepared
    - Data cables between PP1-PP2 and PP2-PP3
    - PU and RU in place
    - Next step: place Detector in the Service Barrel
* Half-Layer 6
  + Finalization of DCS communication with multiple RU/PUs simultaneously today (Matteo + Michael) [done]
  + Interlock setup after the TC meeting (Paolo) [done]
  + Testing of the full sub rack with the load tomorrow morning (Paolo + Hartmut) [ongoing] => [half-way through, FRED unstable, issues with board 16 and 23 => takes longer, tomorrow morning as well]
  + Testing of the DCS and its safety mechanisms tomorrow afternoon (Paolo, Hartmut, Michael, Matteo, Jochen, Ivan) => tomorrow afternoon because dependencies, discussions ongoing
  + Switching on staves on Wednesday morning (Jochen, Matteo, Michael, Ivan) => after the safety test
  + Operation of up to 4 staves at a time (limited by amount of values that can be polled in 2s)
  + Do we run over night on Wednesday? Need to decide at latest tomorrow during the daily meeting!
* ALF/CRU version hot fix => seems stable, need access to the repository
* Readout.exe issues =>
  + one reported, not seen as bug as the packets are dropped and this is ok from their point of view => need to give feedback that this is not ok for us
  + super pages order not ok with LZ4 => should have been addressed

# 2019-06-04

Attendees: Artem, Svetlana, Paolo, Hartmut, Gianluca, Johan, Arild, Matteo, Jochen, Michael, Zhaozhong, Markus, Ivan, Miko, Antoine, Franck, Corrado

Status

* Half-Layer 2
  + One stave needs to be replaced, waiting for Ivan’s histograms
* Half-Layer 6
  + See above under 2019-06-03
* QC
  + Implementation with the pipes (incl. compressed data) is working
  + Will clean up the histograms and give documentation [tomorrow, Markus, Zhaozhong]
* DCS
  + Debug FRED stability issue [Ivan, Michael, Hartmut and Paolo]
  + Watchdog behavior [Ivan, Michael, Jochen]
* Services [Antoine, Gianluca]
  + Optical terminal plate for HL2 and trunks have to connected [Antoine]
  + Patch cords have been ordered
  + Testing the second rack of HL6 [Hartmut, Paolo]
* Assembly [Corrado]
  + Environment sensor will be installed today and tomorrow
  + Outer Barrel staves can be installed
  + Second Half-Layer 4 for next week
* Readout electronics
  + Jo tested last night the new CRU firmware
  + Matteo will test the new CRU firmware on flpits1 starting from 17:00 [Matteo]
  + Tests on flpits0 tomorrow during lunchtime [Matteo]
  + Need to update the bit files of the PA3s (not urgent but should done before the layer will be powered on [Arild]

# 2019-06-05

Attendees: Artem, Miko, Paolo, Corrado, Matteo, Michael, Antoine, Franck, Johan, Markus, Jochen, Ivan, Gianluca, Hartmut, Marc, Svetlana, Sylvain

* Half-Layer 2
  + We can add layer 1 on top of Layer 2 in the CYSS => need to change the stave now
  + Need to find replacement stave (waiting for answer from Ivan Ravasenga)
  + Testing the cooling for layer 2
  + All data and power cables are in place, need to be connected
  + Power Boards and Readout Units are in place, need to be connected to the cooling [Antoine]
  + Missing: fibers
  + Optical patch cords expected tomorrow or Friday (enough for temporary testing)
  + Dip switches and Jumpers on RUs were corrected
* Half-Layer 6
  + One power cable to be replaced => do additional test and in case replace the cable [Jochen]
  + PA3 on all boards updated, jumpers set correctly
  + CRU updated 3.1
  + Other activities delayed by ALF FRED => shift all by one day
* QC
  + One layout with basic information for shifters, still working on user-friendliness [Zhaozhong]
  + Need to verify the decoding [Zhaozhong, Miko]
* DCS
  + Fixed issue with the configuration
  + Installed latest version and it is running as a service now
  + Stress test pending (crate testing + simultaneous powering of RUs)
  + Occasionally RU FIFOs go out of sync (when reading while there is now data in the FIFO); data in FIFO will get a tag, which is implemented by Jo; does not affect the temperatures but voltages and currents
  + Hardware interlock is set to 10s in the watchdog
  + Still an issue in the Power Unit initialization
* Services
  + Optical equipment should be in place by the end of this week [Gianluca]
  + Ordered extra optical equipment for rack 3 and 4 [Gianluca]
  + Protection for fibers [Gianluca]
  + Trigger equipment still being procured [Piero]
  + Wiring of interlock started, material ordered [Johan]
  + Environmental sensors PP2 to EMLB, discussion tomorrow at 10:00 in 23/R-20 [Johan]
* Assembly
  + Environmental sensors in HL6 will be glued this afternoon
  + Second Half-Layer 4 on track for next week (including cover)
* Readout electronics
  + All ok for HL2 and HL6 in terms of RUs
  + New CRUs expected next week at CERN, need to be tested after arrival
  + Gianluca will ask Alex about the CRUs
* Cooling
  + Two interlocks caused today
    - Misunderstanding in one case
    - All channels are in the interlock, even if not used for the detector
    - All interventions need to be scheduled from now on in this meeting
    - Log book entries are missing
    - Cooling intervention at 9:00
* Phone not working in case of network problems 🡪 Go to general announcement
* Need to find a way for expert communication [Felix]
* USE THE LOGBOOK

# 2019-06-06

Attendees: Antonello, Ivan, Hartmut, Markus, Gianluca, Johan, Paolo, Michael, Matteo, Miko, Svetlana, Zhaozhong, Artem

* Half-Layer 0:
  + Intervention on cooling loop interlock intervention tomorrow at 9:00 about 30min [Paolo, Felix] => DONE
  + Intervention on CRU at the same time [Ivan, Miko, Matteo] => DONE
  + Intervention to change back to 1.2 Gbps [Matteo, Miko] => DONE
  + Intervention after lunch (13:30) to go to global clock on RU [Matteo]
    - Bit file uploaded
    - Not tested yet, can load on demand and test
    - Not tested as priority to debugging of the Temperature module in the RU
* Half-Layer 2:
  + 4 staves need potentially replaced (hot spots in the threshold map), took radioactive source data, analyzing now  
    => Miko’s recommendation is not to replace them
    - Higher threshold confirmed
    - Small number of pixels (less 1024 affected)
    - Taking additional data which can be clusterised
    - Will take decision on Tuesday
  + Need to take a general discussion on the usage of such staves
    - If we don’t replace tomorrow
    - If we replace Tuesday
* Half-Layer 6:
  + Because of the DCS still in the same status
* QC:
  + Userfriendliness improved [Zhaozhong]
  + Shifter instructions improved [Markus]
  + Found problems in the comparison of the decoders [Miko, Zhaozhong], asked Ruben to patch it => Implemented this feature and comparison is successful
  + Old layouts were removed from the web interfaces [Zhaozhong]
* DCS:
  + Found a bug, but needs to be analyzed
    - Configuration file parsing error
  + Ramp-time of the CAEN system is not setable from ICEcontrols [Hartmut] => no news
  + Power-down sequences to be implemented (correct display of the status) [Michael] => post-poneds
  + Interlock intervention with super capacitors, what are the effects [NEED TO ASSIGN MANPOWER] => Gianluca and Paolo assigned
* Services:
  + Set back-bias maximum currents
    - Define the current [Gianluca, Felix] => NOT DONE
    - Setting the power supplies [Hartmut, Paolo]
  + Trunk cable installation done yesterday [Matteo, Gianluca]
  + Powering is not safety compliant [Gianluca]
  + Power Board for L2 need to be set to IB mode [Gianluca] => DONE
  + Safety of computer installation in the rack [Gianluca]
  + Order for interlock components send [Johan]
  + Work on environmental sensors started [Johan] => will send out the orders
* Assembly:
  + Environment sensors being glued today to HL6
* Readout electronics:
  + No news on the CRUs, still have to contact Alex
  + Still running on the local clock on the RUs
* Cooling:
  + Changing the IB rack interlock removing everything but IB00, IB01, IB10, IB11, IB20 and IB21 from the input

# 2019-06-07

Attendees: Markus, Ivan, Hartmut, Michael, Matteo, Svetlana, Artem, Zhaozhong, Paolow, Miko, Corrado, Gianluca, Antoine

* Half-Layer 0:
  + Test with global clock on the RUs
* Half-Layer 2:
  + Take decision on hotspots
* Half-Layer 6:
  + Managed to reproduce the issue leading to loss of control with the Power Board which could only be resolved by a power cycle the Power Board; cause not understood; could be interleaving of the WB transactions with T checking => certain I2C instructions bring the PB into a stall state
  + Difficult to reproduce in Python
  + Matteo found firmware issues in the temperature module, Jo preparing the fixes; they’re not causing the issue
  + No crashes in ALFRED since yesterday evening
  + Coordinating with Harmut and Paolo to run the HL6 at the same time
* DCS:
  + Fix the temperature module issue with the RU interplay
* QC:
  + Added another state for the status of reading the files
  + Need to adapt shift instructions
  + Need to start to use it
* Services:
  + Set back-bias maximum currents
    - Define the current [Gianluca, Felix] => NOT DONE
    - Setting the power supplies [Hartmut, Paolo]
  + Powering is not safety compliant [Gianluca] => NOT DONE
  + Power Board for L2 need to be set to IB mode [Gianluca] => DONE
  + Safety of computer installation in the rack [Gianluca] => NOT DONE
  + Work on environmental sensors started [Johan] => will send out the orders
* Assembly:
  + Installation planned for Tuesday, Thursday and Friday afternoon [Corrado]
  + Need to one half-layer to the dry assembly area to have more space for installation [Corrado]
  + Ask for second cleaning in the clean room [Corrado]
  + Service Barrel of L6 bottom should be ready
  + Add print outs of the naming scheme next to the racks [Gianluca]
* Readout electronics:
  + No news on the CRUs, still have to contact Alex [Gianluca]
  + Still running on the local clock on the RUs
* Cooling: