V0 calibration status

V0 Offline Status

Calibration CDB file has been created and CDB reading implemented.

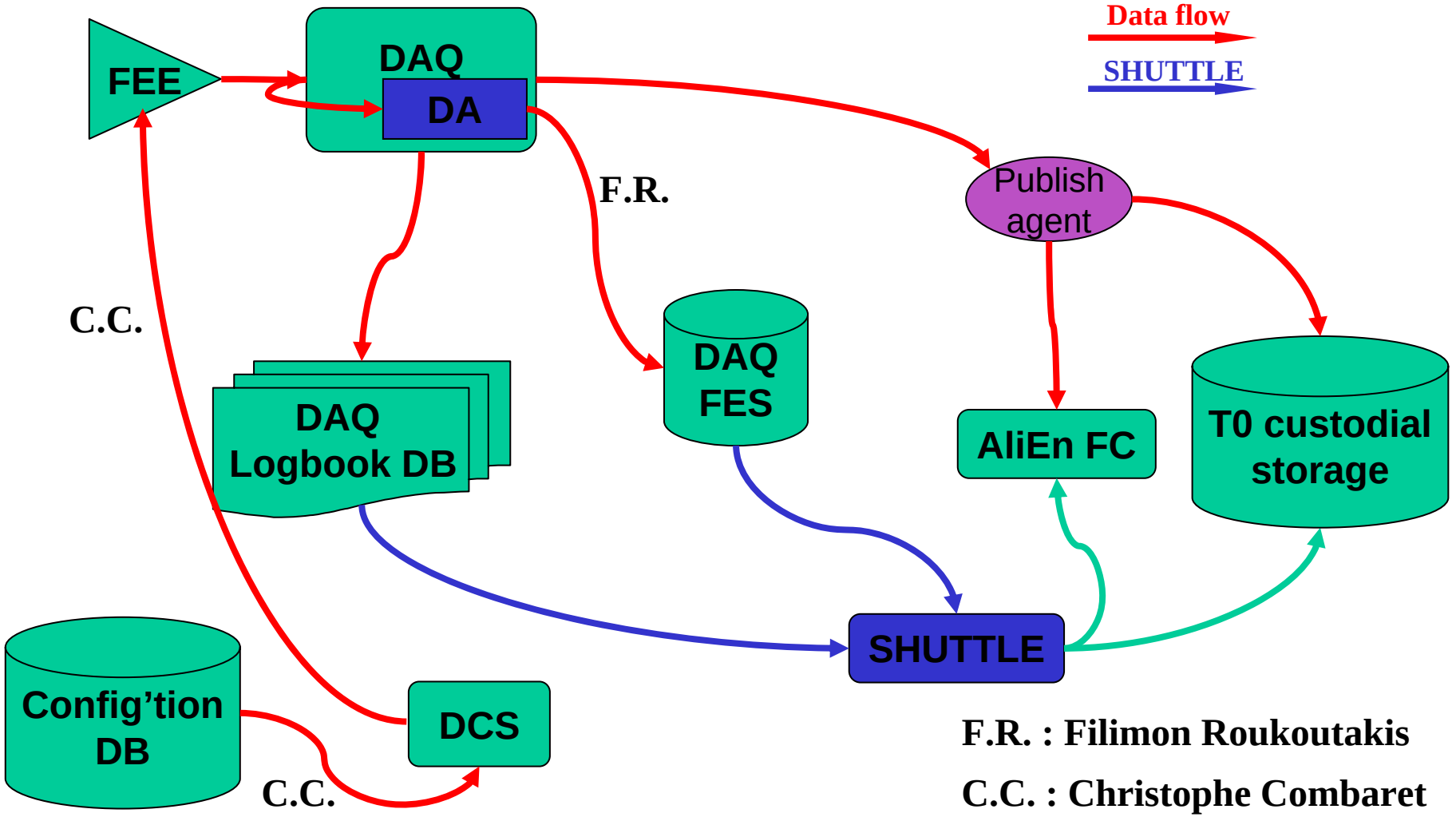
Calibration parameters stored into CDB are :

- 128 gains, 128 pedestal means, 128 pedestal sigmas (2 QDC per channel)
- 64 time gains and 64 time offsets

i.e. 512 floats, 4 kB

All these parameters are accessible through class AliVZEROCalibData

V0 Offline Status



Calibration procedure

- Calibration parameters are computed online in the DAQ LDC/monitoring farm during physics run

- Results are made available as ROOT files in the DAQ FES

- After run, current values are compared with reference values in order to update the FEE if necessary

V0 Offline Status

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Online output data for DAQ and monitoring :

An event as seen by the V0 Front End Electronics will be:
- Charges (64).
- Arrival times (64) and time response widths (64).
- Beam-Beam (BB) and Beam-Gas (BG) flags (64).
- States of the 5 triggers sent to the CTP (MinBias, BB, BG, Central,SemiCentral).

For each event triggered by a L2 signal coming from the CTP (called Event-Of-Interest), the following information will be sent to the DAQ:

1. The event of interest itself with **all** the parameters listed above, for physics analysis
2. The events between EoI-10 to EoI+10 (charges and BB/BG flags), for monitoring pedestals, pile-up…
3. The 10 last V0 Minimum Bias events (charges and BB/BG flags), for monitoring gains

Summary of calibration procedure

Gains and pedestals will be computed by Online Monitoring using dedicated data (minimum bias and +/- 10 around the event of interest mini-events respectively) stored in the FEE and sent to the DAQ with the events of interest.

Note that this procedure is achieved by the FEE independently of the Central Trigger Processor.

These values will be written in the Calibration Data Base for later use by offliners and updated at each run change.
Validity period will be run interval unless a hardware failure occurs.
Writing access should be given to authorized people only and as frequently as needed for special updating.