Support for Online Calibration in the ALICE HLT Framework

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Highlights

• Online calibration first deployed during the PbPb period in December 2015.
  • Time dependent TPC calibration.
  • 5 CPU cores per node (on 120 nodes) -> 31Hz, ~80Hz after some initial optimisation.
  • ~3000 events per interval processed in 5 minutes.
  • 140 seconds to distribute and prepare new transformation maps for online reconstruction.

• Procedure fully asynchronous and failure resilient.

• Calibration equivalent to offline within cluster resolution.

• Running ever since, TPC continuously updating its calibration.
  • currently load in pp < 3 cores per node.