

IP2I Lyon

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ProtoDUNE DP analysis discussion

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Focus on the analysis aspect for this discussion: not going to cover significant amount of technical work behind the PDDP data processing & computing

- Analysis of the online reconstruction to provide a quick feedback on the detector performance
 - Purity evaluation
 - Assessment of the CRP performance
 - Data quality monitoring system with GUI if a stable detector operation regime is established
- These online analysis tools could be exported to larsoft
- Interface to the PDDP charge data including mapping of the readout channels to CRP views
- “CRP gain” service for gain simulation to include LEM inactive areas
 - Should be expanded to allow setting gain values at level 50x50 LEMs

- Low level reconstruction : raw digits → calib::Wire → hits
 - Hit charge reconstruction in larsoft
 - gaushit seems to be preferred (maintained) tool; requires shaping hit charge with some appropriate filter → not a lossless process so need to make sure charge is preserved
- E. Pennacchio is the PDDP liaison person to the DUNE production group & computing, and in general the DUNE computing in France
 - Once production parameters are defined within the analysis group, she can submit the request for production