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Production processing and workflow management software evaluation in the DUNE collaboration

Monday 4 November 2019 11:30 (15 minutes)

The Deep Underground Neutrino Experiment (DUNE) will be the world's foremost neutrino detector when it begins taking data in the mid-2020s. Two prototype detectors, collectively known as ProtoDUNE, have begun taking data at CERN and have accumulated over 3 PB of raw and reconstructed data since September 2018. Particle interaction within liquid argon time projection chambers are challenging to reconstruct, and the collaboration has set up a dedicated Production Processing group to perform centralized reconstruction of the large ProtoDUNE datasets as well as to generate large-scale Monte Carlo simulation. Part of the production infrastructure includes workflow management software and monitoring tools that are necessary to efficiently submit and monitor the large and diverse set of jobs needed to meet the experiment's goals. We will give a brief overview of DUNE and ProtoDUNE, describe the various types of jobs within the Production Processing group's purview, and discuss the software and workflow management strategies are currently in place to meet existing demand. We will conclude with a description of our requirements in a workflow management software solution and our planned evaluation process.

Consider for promotion

No

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