

# 8th Beam Telescopes and Test Beams Workshop



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## A generic ROOT monitoring tool for eudaq2

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An example of a successful integration in the eudaq2 environment of a readout board developed and used at the joint CMS-TOTEM Precision Proton Spectrometer (PPS) along LHC Run 2 is presented. It allows to perform an online event matching between the DUT signals, digitised with a sampler chip (SAMPIC), and the EUDET telescope. To assess the activity of the system during the tests of this new device at a campaign of PPS test beams operated at DESY-II in 2019, a new ROOT-based online and offline monitoring tool for eudaq2 was developed. Designed with flexibility to hardware specific requirements in mind, it features a base object that can be specialised according to users' needs, through the definition of a collection of variables monitored along data collection. A particular use case is presented where the readout of complex data streams is performed, as provided by the SAMPIC fast waveform sampling chip.

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