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Database Design and Data Retrieval for the PHENIX RPC Factory JUSTINE IDE, Muhlenberg College, PHENIX COLLABORATION — Database Design and Data Retrieval for the PHENIX RPC Factory Justine Ide, Muhlenberg College, PHENIX Collaboration – One of the primary goals of the PHENIX experiment, located on the accelerator ring of the Relativistic Heavy Ion Collider (RHIC), is to determine how the components of a proton contribute to its total spin. In particular, the muon trigger upgrade is designed to allow us to determine the flavor separated quark and antiquark polarizations of the proton. We will achieve this by enhancing our ability to trigger on high transverse momentum single muons that result from the decay of W bosons produced in polarized proton-proton collisions at RHIC. Resistive Plate Chambers (RPCs) will play a pivotal role in the upgrade, and much of last summer was devoted to creating an RPC factory to build and test the new subsystem. A database was constructed in order store the data for numerous quality control tests, as well as information about environmental conditions, and the location of, the gas gaps and modules. This archived information will be used to select the best gas gaps during construction and will be useful during future data analysis. This poster will focus on the RPC factory database design and the retrieval of the stored information.

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