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Simplified pilot module development and testing within the ATLAS PanDA Pilot 2.0 Project

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The Production and Distributed Analysis (PanDA) system has been developed to meet ATLAS production and analysis requirements for a data-driven workload management system capable of operating at the LHC data processing scale.

The PanDA pilot is one of the major components in the PanDA system. It runs on a worker node and takes care of setting up the environment, fetching and pushing data to storage, getting jobs from the PanDA server and executing them. The original PanDA Pilot was designed over 10 years ago and has since then grown organically. Large parts of the original pilot code base are now getting old and are difficult to maintain. Incremental changes and refactoring have been pushed to the limit, and the time is now right for a fresh start, informed by a decade of experience, with the PanDA Pilot 2.0 Project.

To create a testing environment for module development and automated unit and functional testing for next generation pilot tasks, a simple pilot version was developed. It resembles the basic workflow of pilot tasks used in production and provides a simple and clean template for module construction. The miniPilot has a simple structure and is easy to use for development, testing and debugging server-client interactions with new protocols and application interfaces. The unit and functional test system will be developed on top of the miniPilot, and will be used to run automatic tests.

This presentation will describe the miniPilot and the test system that will be used during the Pilot 2.0 Project.

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