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Testing and improving performance of the next generation ATLAS PanDA monitoring

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➤ **Abstract:** The PanDA Workload Management System (WMS) has been the basis for distributed production and analysis of the ATLAS experiment at the Large Hadron Collider since early 2008. Since the start of data taking of LHC Run I, PanDA usage has ramped up to 1.5M peak completed jobs per day in 2014. The PanDA monitor is one of the core component of the PanDA WMS. It offers a set of views convenient to the PanDA users and site operators to follow the progress of submitted workloads, monitor activity and operational behavior, and drill down to the details of job execution when necessary, e.g. to diagnose problems. The monitor is undergoing significant extensions in the context of the BigPanDA project that is generalizing PanDA for the use of exascale science communities. The next generation monitor, BigPanDAmon is designed as a modular application, separating the data visualization and data access layers, following the MVC design pattern. While the front-end benefits from HTML5 and jQuery and its plugins, the back-end part serves data using a RESTful API. User community feedback is very important for the ATLAS PanDA monitor evolution. The BigPanDAmon development team consists of several developers and external contributors distributed world-wide. As new features are introduced rapidly, it is important to make sure all the developers can be productive, and the production front-end remains stable without preventable downtimes at the same time. The changes into the code are continuously integrated and deployed. In this talk we describe challenges for the quality assurance process of the ATLAS BigPanDAmon package. We describe steps taken and lessons learned to improve performance of the user interface of the ATLAS BigPanDAmon.

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➤ **Track:** Computing Technology for Physics Research >> Languages, Software quality, IDE and User Interfaces >> Software quality assurance; code reflection; documentation, performance and debugging tools

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