**Live Analysis and High Performance Computing at SNS**

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The Spallation Neutron Source at ORNL is developing its data analysis infrastructure to allow users to perform data analysis in close to real-time. The phase of this development is to replace the existing data acquisition and management system by a new system that is able to stream the data from the instrument’s acquisition system to any analysis process registered with the streaming service. In addition to being able to run locally, such data processing clients will be able to leverage our new analysis cluster, developed in collaboration with our Computing and Computational Sciences Division.

The new analysis cluster will not only allow scientists at the beam lines to get faster feedback on their measurements to inform their experimental process, but it will also allow fast enough analysis for an analysis application to send rapid feedback to the instrument control system. In this presentation we will discuss the high-level infrastructure of this analysis framework and how it will enable SNS to open the door to new automated ways to performing experiments.

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