The Mantid Project’s software framework provides general support for visualization and data reduction of neutron scattering and muon spin measurements. It allows the users to implement their own custom analysis algorithms and reduction routines. For several scientific areas, such as Small Angle Neutron Scattering (SANS), simple and efficient custom interfaces have been provided to allow users to analyse their data.

While the initial version of the reduction interface for SANS instruments at ISIS facilities has provided a successful solution, recent feature upgrades and the need to incorporate other facilities into the same interface have revealed maintainability and performance issues in the current implementation.

We have proposed a novel solution for the ISIS SANS reduction interface which makes use of a modular and general approach based on Mantid’s work-flow algorithms. This approach allows other facilities to reuse and integrate easily into the existing infrastructure, therefore reducing future development and maintenance cost and effort.