**International Software Projects – The Mantid Model**

Nick Draper1

1Tessella, 26 The Quadrant, Abingdon, Oxfordshire, UK

The Mantid[1] project was started by ISIS in 2007 to provide a framework to perform data reduction and analysis for neutron and muon instruments and accommodate the increasing data volumes from newer instruments. The SNS and HFIR joined the Mantid project in 2009 adding world leading event processing and other capabilities to the Mantid framework. The Mantid software is now supporting the data reduction needs of most of the instruments at ISIS, the SNS and some at HFIR, and is being evaluated by other facilities.

The scope of data reduction and analysis challenges that Mantid faces, together with the need to create a cross platform solution, fuels the need for Mantid to be developed in collaboration between facilities. Mantid has from the inception been an open source project, and having been built to the flexible enough to be instrument and technique independent, was initially planned to support collaboration with other development teams. Through the collaboration with the SNS development practices and tools have been further developed to support the distributed development team in this challenge.

This talk will highlight some of the current developments in Mantid, and describe the project management and software engineering structures of Mantid, concentrating on those aspects that help support the needs of a distributed collaboration, and the use of automation to optimise the use of time and resources and support cross platform development.

**References**

1. www.mantidproject.org

Email corresponding author: nick.draper@stfc.ac.uk Preference: Oral

Key theme: Best Practice in software engineering.