**Linking instrument control with data analysis**

Jon Taylor1, Matt Clarke1, Martyn Gigg2

1ISIS facility STFC Rutherford Appleton Lab, Chilton, Oxfordshire, OX11 0QX

2 Tessella plc, Abingdon, Oxfordshire, UK

The Mantid framework[1] provides the visiting researcher and instrument scientist with a highly flexibly framework allowing data reduction, data visualisation and data analysis. The flexibility of the framework and in particular the ability exploit the extensive python API to many initially envisaged areas is one of the key advantages of the project.

Here we demonstrate the simplicity of integrating neutron instrument control into the data reduction chain, allowing deployment of a fully customisable command set which allows the user and instrument scientist to exploit the benefits of ‘intelligent’ run control, i.e. allowing the instrument autonomous control or run time based on an algorithm that continuously monitors the real time data.

A simple GUI environment is presented that allows access to these features along with real time instrument sequencing.

**References**

[1] www.mantidproject.org

Email corresponding author: jon.taylor@stfc.ac.uk Preference: Oral

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