**Joint SSC 27th Jan 2015**

**Capture of medium term requirements 1-2 years**

**Richard Heenan (RH) ISIS**

**William Heller (WH) SNS**

**Andrew Jackson (AJ) ESS**

**Tobias Richter (TR) ESS**

**Pete Peterson (PP) SNS**

**Anders Markvardsen (AM) ISIS**

**P** stands for priority: 1 to 5, 1 being highest

**CC** stands for CC in on ticket created for

**ISIS**: Would ISIS like this feature?

**SNS**: Would SNS like this feature?

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| **#** | **P** | **Description** | **CC** | **ISIS** | **ORNL** |
| 1 | 4 | DAQ and Detector deadtime  *(DAQ: delay from readout and ADC conversion. Detector: delay from intrinsic ion pair/photon production)*  Don’t know the physics of this. Including can delays from DAQ and detector can distinguished. | WH,RH, AJ | Y | Y |
| 2 | 1 (SNS)  3 (ISIS) | Detector dark current  *(source on detector background)*  Expected useful be useful for ESS | WH, RH, AJ | Y | Y |
| 3 | 2 (ISIS) | Detector spherical dilation (parallax)  *(for larger solid area of pixels at wider angles)*  Now know where the detectors are within 2 mm (ISIS). Hence this now makes this relevant. SNS not expecting this to have much effect yet but would like to follow discussions | WH, RH, AJ | Y | Y |
| 4 | 5 (ISIS) | Detector detection depth (‘gondola effect’)  *(for greater path length at wider angles)*  First understand the physics of this. | RH | Only affects LOQ (2014-) | Not an issue with tubes |
| 5 | 2 (ISIS) | Sample self-absorbtion  *(for greater path length through sample at wider angles)*  Is available for high angle bank on LOQ only at ISIS. Need to be available for main bank | RH | Y | Available |
| 6 | 3 (ISIS) | Masking from sample  *(to exclude pixels from data reduction)*  For high-angle detectors, detector pixels can be shadowed by the sample environment or baffles in vac tank. | RH, AJ | Y | N/A |
| 21 | 2 | GISANS slicing | Shuo Qian, RH, AJ | Y | Y |
| 7 | 1 (ISIS) | Polarisation analysis ( process 4 periods)  Relevant for Larmor and Zoom | RH | Y | N/A |
| 8 | 5 | TOF flux line lattice (slices & rotations) for superconductivity | WH, RH, AJ | Y | Y |
| 9 | 2 (ISIS) | Making adding event files faster | RH | Y | N/A |
| 10 | 2 (ISIS) | More options for ISIS batch processing (e.g. embed python)  At SNS happy with users edit python scripts for this | RH | Y | N/A |
| 11 | 1 (SNS) | HFIR, merge 2D data  HFIR needs to decide how to do this first. It was agreed that it is a difficult problem. Instrument scientist needs to specify what they want first | Venky Pinpali | N/A | Y |
| 12 | 2 | Improving the pipelining to fitting codes e.g. SASVIEW  Possibly by pipelining mantid workspace into sasview. Harmonise sasview and mantid interfaces. Sasview may separate GUI and backend, in which case Mantid can link to a sasview backend. This may open up for enable a tighter feedback loop between analysis and a decision making while running an experiment. Have Mantid interface to sasview.  Ticket here is to open this up for further discussion | WH, RH, AJ | Y | Y |
| 13 | 1 (SNS) | Keep transmission data for SNS | WH | Available | Y |
| 14 | 2 | Minimize repeated reduction operations  Improve speed by reducing the number of repeated operations in the reduction process. E.g. if the same CAN run is used then there is no point re-reduce CAN run. PP, suggested a technical solution using something similar to where build server register which files have been touched (Ninga) | WH, RH, AJ | Y | Y |
| 15 | 2(SNS)  4 (ISIS) | Reuse saved configuration in GUI  Capture configuration from GUI interfaces, such that these can be used later to populate settings in GUI interface.  May not be SANS specific. More urgent for SNS. | WH, RH | Y | Y |
| 16 | 3 | Use of meta data to fill in field in GUIs.  It is required that a meta data store is available | WH, RH, AJ | Y | Y |
| 17 | 3 (ISIS) | Change ISIS user file to python format | RH | Y | N/A |
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**Other**

* ISIS and SNS prefer to keep two separate user interfaces, which there users are comfortable with
* Auto-reduction is dependent on appropriate information being provided from the data acquisition system to allow for correlating measurements (e.g. Transmissions with scattering) and as such is a low priority
* PP: Sending a saved MantidPlot project to someone else to use

**Noticed but no ticket yet**

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| **#** | **P** | **Description** | **CC** | **ISIS** | **ORNL** |
| 1 | 5 | Inelasticity  *(to compensate for thermalisation in sample)*  Can of worms. Noticed but no ticket |  | Y | Y |
| 2 | 4 | Multiple scattering  Can of worms. Ongoing. Noticed but no ticket |  | Y | Y |
| 3 | 5 | Handle GRASP-compatible format  Option to read GRASP. But without anyone from this community to drive this it is difficult |  | Y | Y |
| 4 |  | Incident flux & measurement time  *(for per neutron per second normalisation)*  SNS can’t normalise against monitor. AJ may put in specific ticket request |  |  |  |