

MANTID, AUSTRALIAN CENTRE FOR NEUTRON SCATTERING ANSTO

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Australian Centre for Neutron Scattering (ACNS) operates 15 instruments, see below. By now three instruments are using Mantid. The data are recorded and sent to reduction in the event mode.

The current plan (to be discussed and expanded) is to include more instruments, SANS Quokka and perhaps more, into this set, but the work has not been started yet. Also, the current interest is to complete GUI for Bilby SANS instrument and put more effort into the tools for data analysis in Mantid.

Resources: we have one member of the computer group who can dedicate ~20% of his time (this is a floating number; projects and the load are floating) to development of Mantid code. Some instrument scientists are involved into development too, but certainly not at the level of a full capacity software developer.

Please see comments for each of the instrument in the table below.

Diffractometers:	
1. ECHIDNA	High-resolution powder diffractometer <i>//Mantid use is possible, in theory, ILL demonstration to be scheduled</i>
2. WOMBAT	High-intensity diffractometer <i>//Mantid is desirable, ILL demonstration to be scheduled</i>
3. KOALA	Single-crystal Laue diffractometer <i>//Mantid is highly desirable and migration to it should be planned with high priority and asap.</i>
4. KOWARI	Strain scanner <i>//Use of Mantid is not foreseen</i>
5. JOEY	Crystal-alignment Laue diffractometer <i>//Use of Mantid is not foreseen</i>

Small-angle Spectrometers:

6. QUOKKA	Monochromatic SANS <i>//Mantid might be implemented. ILL presentation to be scheduled soon</i>
7. BILBY	Time-of-Flight + monochromatic SANS <i>//Mantid is the only reduction software; Bilby has been developed having Mantid as the only option.</i> <i>Event mode always in use. GUI is in development.</i> <i>Needs:</i> <i>GISANS; plots: to see property of each pattern</i>
8. KOOKABURRA	Ultra-SANS <i>//Mantid use is possible, in theory, no preliminary work done</i>

Imaging & Reflectometry:

9. DINGO	Radiography/tomography/imaging station <i>//Use of Mantid is not foreseen</i>
10. PLATYPUS	Reflectometer <i>//Use of Mantid is not foreseen. In-house software written by Andrew Nelson is in use.</i>
11. SPATZ	Reflectometer <i>//Use of Mantid is not foreseen. In-house software written by Dr Andrew Nelson is in use.</i>

Inelastic Spectrometers:

12. TAIPAN	Thermal-neutron three-axis spectrometer with Be-filter option <i>//Use of Mantid is not foreseen.</i>
13. SIKA	Cold-neutron three-axis spectrometer <i>//Use of Mantid is not foreseen.</i>
14. PELICAN	Cold-neutron time-of-flight spectrometer

	<i>// Mantid is in use, together with LAMP, which is in use for some special cases.</i>
15. EMU	<p>High-resolution back-scattering spectrometer</p> <p><i>// Mantid is in use, offered as an alternative to Matematika code. One or another can be used, but slow transition to Mantid is happening.</i></p>