Mantid & ICAT

About me

```
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Agenda

1. Mantid
2. ICAT within Mantid
3. IDS within Mantid
4. Future plans
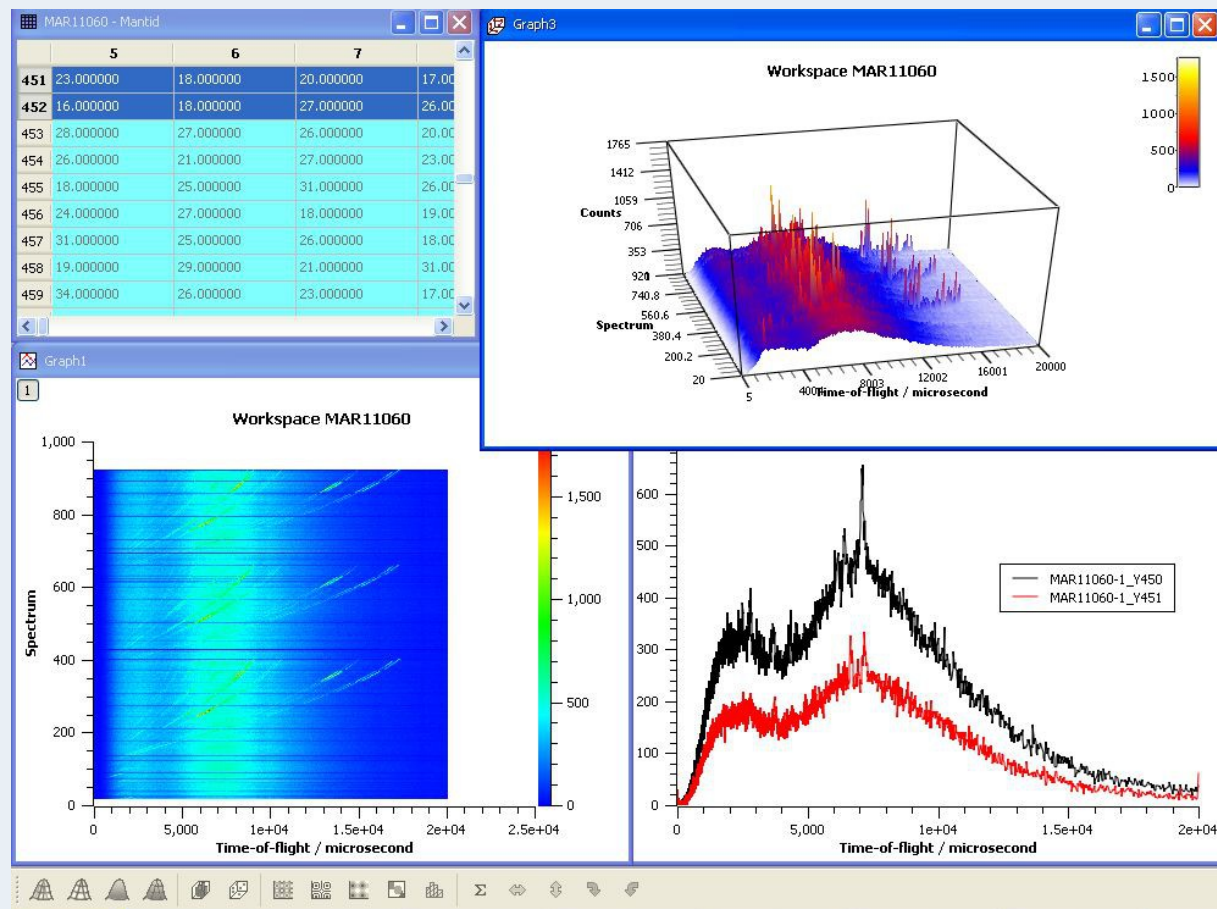**5.** Questions

Mantid

- What is Mantid?

  - Framework that facilitates HPC & visualization and analysis of *neutron* and *muon* data

  - Collaboration between ISIS and SNS

  - Supports various techniques

  - Inelastic (Direct/Indirect)

  - Diffraction

  - Muon

  - Disordered Materials

Mantid

- Features include:
  - Flexible: Instrument/Facility/Technique independent
  - Cross platform (UNIX, Win, OS X)
  - Open source (@mantidproject)
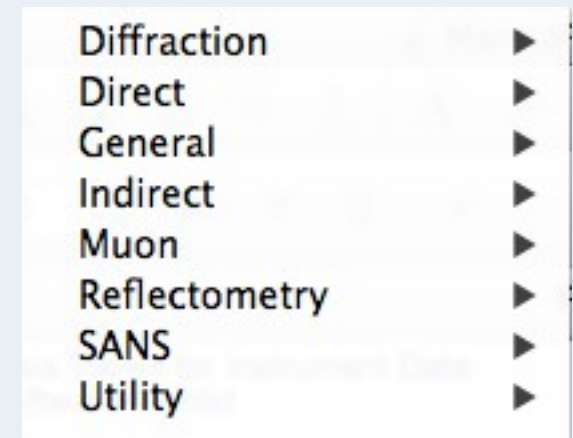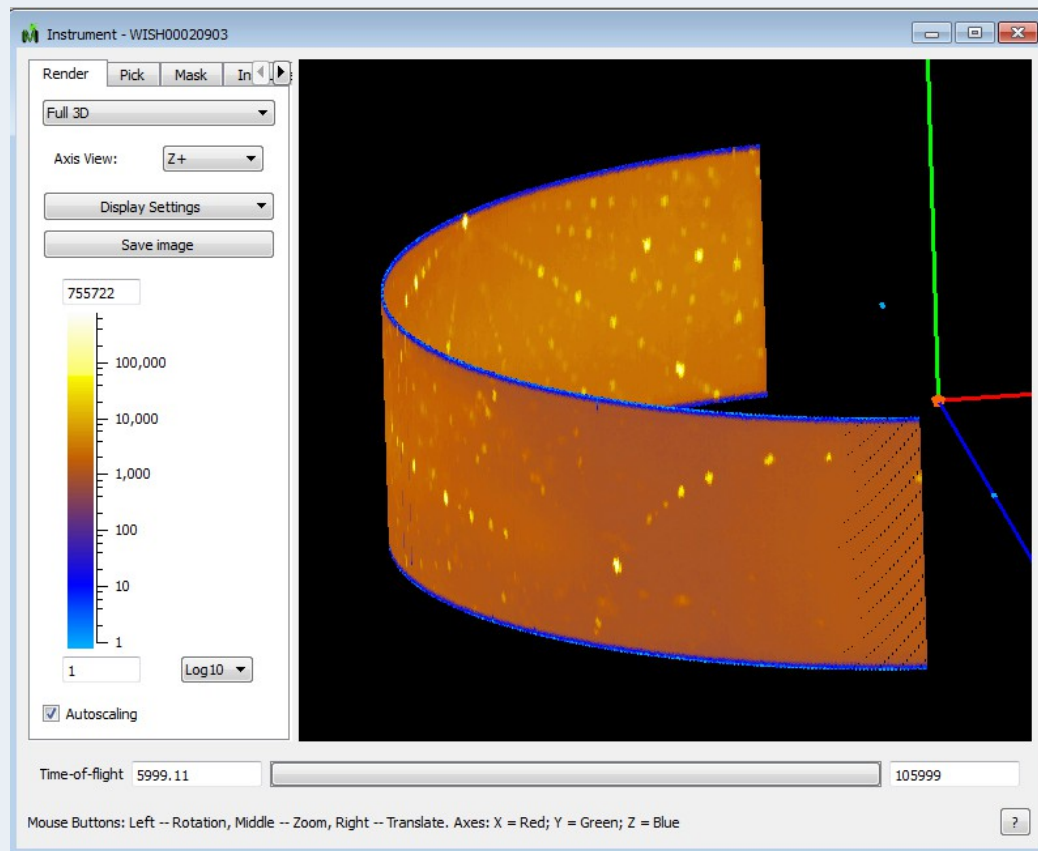 - Ease of use (Expert -> Visitor)

Mantid - visualisations

- MantidPlot

Mantid - visualisations

- Custom interfaces

ICAT within Mantid

- Why is it used?
  - Load data directly from archives
  - Easily access catalogued data

- How is it used?
  - **New** Catalog == **new** adaptor

ICAT within Mantid

- Search parameters

ICAT within Mantid

- Search results

Search results: 10 investigations found.

Double click on an investigation to view related datafiles.

Investigation id	Title	Instrument	Run range	Start date ▼	End date
1390019	The structure of the ionic condu…	GEM	62862	2013-05-30	2013-05-30
1390020	Refinement of the ND3 deficit in…	GEM	62855	2013-05-29	2013-05-29
1390046	Undeformed, R242 5x15 mm	GEM	62831, 6303…	2013-05-27	2013-06-11
1390028	Al cylinder with 10% deformation	GEM	62838-62839	2013-05-27	2013-05-28
1390031	Al cylinder with 40% deformation	GEM	62832-62833	2013-05-27	2013-05-27
1390030	Al cylinder with 30% deformation	GEM	62834-62835	2013-05-27	2013-05-27
1390029	Al cylinder with 20% deformation	GEM	62836-62837	2013-05-27	2013-05-27
CAL_GEM_…	Y2O3 pos 5	GEM	62414	2013-05-15	2013-05-15
CAL_GEM_…	Si SRM640c 8mm pos 6	GEM	62410	2013-05-14	2013-05-14
CAL_GEM_…	Empty CCR 4K 15x40 mm	GEM	62402-62409	2013-03-29	2013-05-14

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Datafiles information:

ICAT within Mantid

- Investigation datafiles

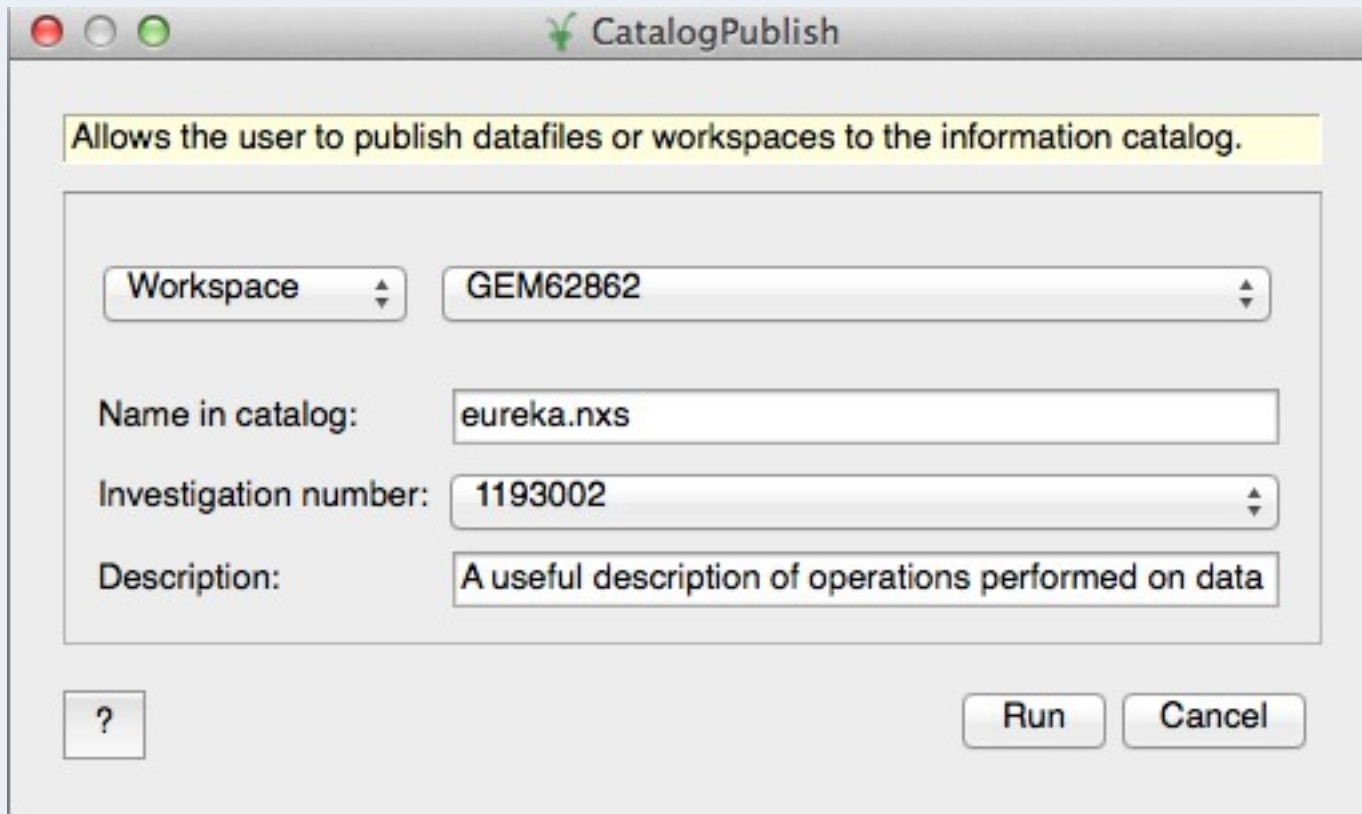# IDS within Mantid

- Downloading (GET)
  - Off-site access
  - Local archive access not required
  - Access latest datafiles

IDS within Mantid

- Publishing (PUT)
  - Share analysed data
  - Automatically upload workspace history

IDS within Mantid

- Publishing GUI

Future plans

- Cross facility querying (optional)
  - One query to be sent to each logged in catalog.
  - Results collated on search GUI

Future plans

- DOIs generated for published *public* data

Questions?