

MyTardis: FAIR data management for instrument data

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GENERAL INFORMATION

- Workshop Length: One Day
- This workshop will have the last 2 hours as a hands-on component
- There are no constraints on the number of attendees
- No special seating or table requirements are requested
- No special technical requirements are required

DESCRIPTION

Research data management platforms aim to meet the challenges of capturing and managing large volumes of research data, while ensuring that the data is Findable, Accessible, Interoperable and Reusable (FAIR). One such platform is My Tardis (<https://www.mytardis.org>), an open-source research data management platform that was initially established to handle and store macromolecular crystallography data {Meyer:2014ub, Androulakis:2008ku}. Through several national projects like the NeCTAR Characterisation Virtual Laboratory (<https://www.massive.org.au/cvl>), ImageTrove (<http://projects.ands.org.au/id/ERIC08>) and the ANDS Trusted Data projects (<https://projects.ands.org.au/id/GFA16>), My Tardis has evolved into a general purpose research data management system, with a focus on integrating scientific instruments and instrument facilities. It is used across light microscopy,

electron microscopy, proteomics, cytometry, magnetic resonance imaging (MRI), positron emission tomography (PET), and other scientific techniques. It integrates over 100 Australian instruments across Monash University, University of Queensland, University of Newcastle, University of New South Wales, RMIT, and the University of Western Australia.

In this workshop, representatives from the Characterisation community will share their experience in developing and operating large deployments of MyTardis. The core development team of MyTardis will share the progress toward improving the scalability and the reliability of MyTardis. We will also outline the short- to the medium-term roadmap for MyTardis development and our plan to continue the engagement with the wider community to help us build the next-generation platform for instrument data management. Finally, we will run a hands-on workshop on best practices for deploying and operating MyTardis, specifically targeted at developers and system administrators, with an emphasis on the new features introduced on MyTardis through 2019.

Workshop Contents:

Overview of MyTardis and its deployments

- Overview of MyTardis
- Developing and operating MyTardis at Monash University with an emphasis on the use of Microservices architecture.
- NIF Trusted Data Repositories
- Developing and operating MyTardis at the University of Queensland and NIF
- Developing and operating MyTardis at the University of Western Australia
- MyTardis features for instrument facilities

Future Roadmap

- The Future of MyTardis
- Requirements from instrument facilities
- Addressing FAIR by integrating with the experiment, trusted data repositories.
- Panel Discussion / BOF- Next-generation Instrument data Future and challenges

Hands On

- Hands-on session on the deployment of MyTardis

WHO SHOULD ATTEND

Instrument facility managers

Data Managers

IT Managers & Directors

Professionals in associated disciplines

Research Computing Specialists

Research Managers

University Representatives

Researchers

Librarians

Software & App engineers

WHAT TO BRING

Attendees need to bring a laptop.