A Configurable Application for Measurements, Experiments and Laboratory Systems

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FAIRmat

NOMAD CAMELS

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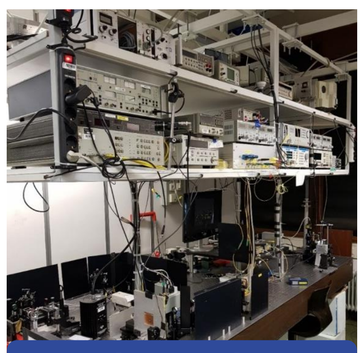
What is the concept?



Experimental setup

Communication:
- VISA
- EPICS
- etc ...

GUI

User

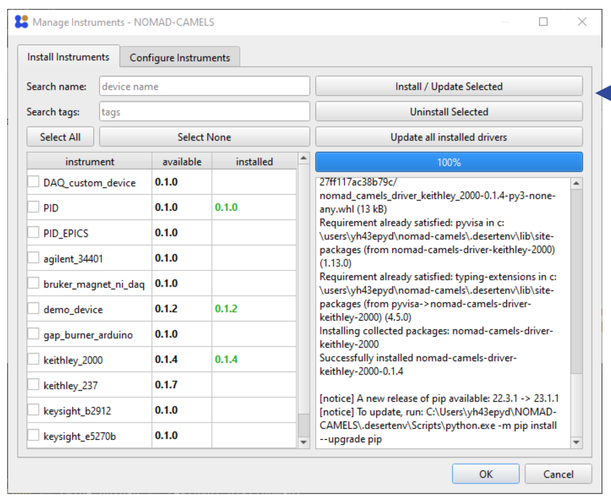
Configuration

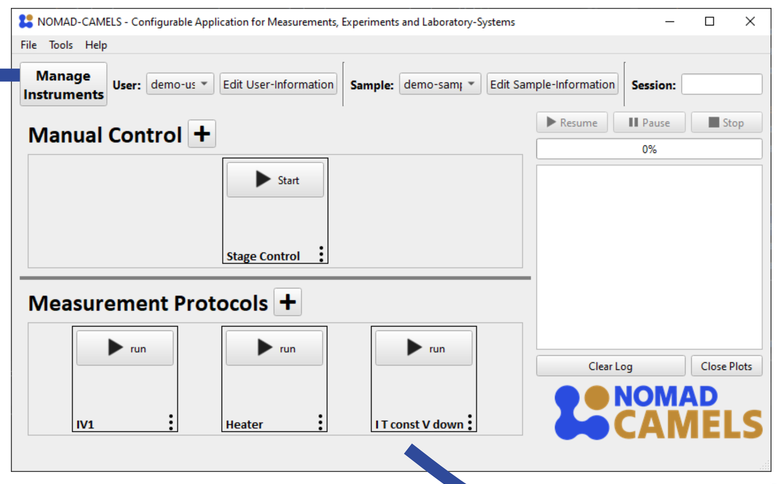
Measurement protocol

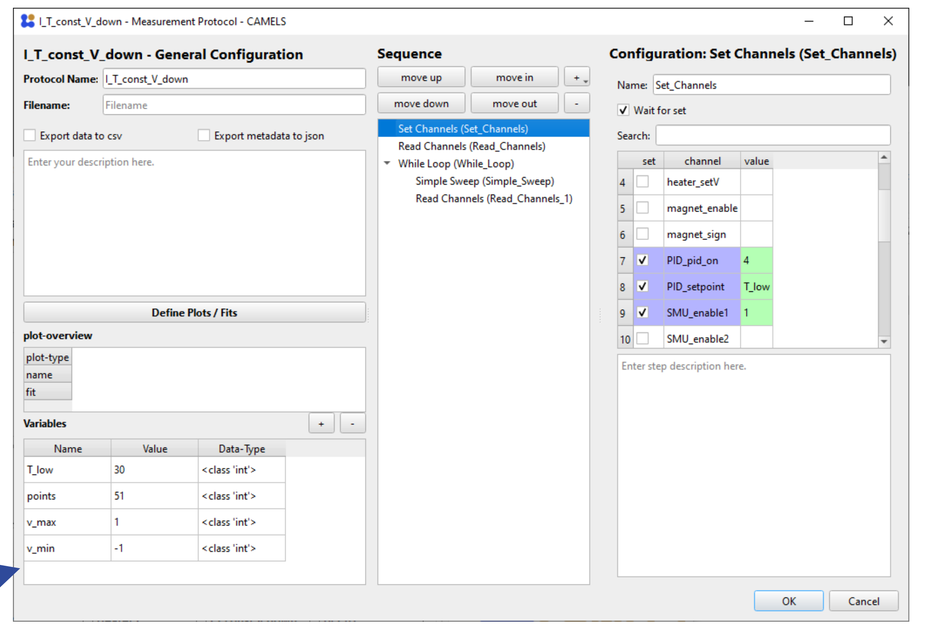
- Fast configuration of measurement protocol
- No programming skills required

FAIR (ready) data
- Raw data
- Metadata incl. devices, settings, protocol, ...
- Structured data format (HDF5)

What does it look like?





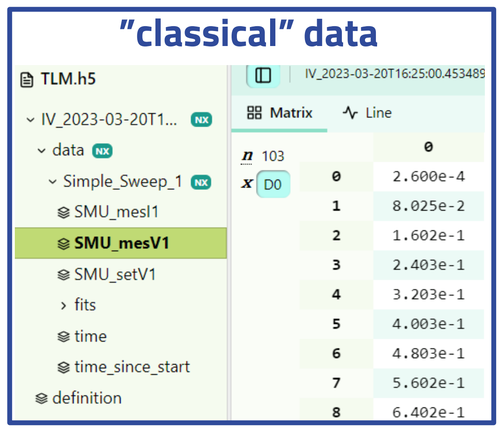


What are the features?

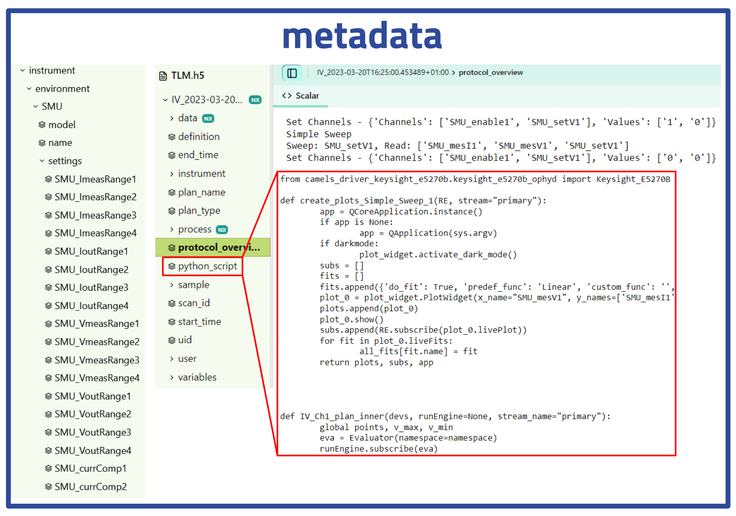
- **Open source** (hosted on GitHub)
- Ready to start first measurement in **< 30 minutes**
- **GUI generates Python** (bluesky) code → customizable
- Complete recording of **metadata**
- **Scalable**
  → Local device communication (e.g. VISA)
  → Large-scale distributed control systems (EPICS)

What's in the data?

"classical" data



metadata



Why use NOMAD-CAMELS?

Customizable
- Setup consisting of several measurement instruments
- Dynamic changes of the measurement setup
- Multiple use-cases for a single setup

Open source & Community driven
- Drivers written by & for the community

FAIR data
- Standardized data formats
- Rich metadata

Easy to use
- Low-threshold entry to device communication
- Save time communicating with devices

Contact

www.fairmat-nfdi.eu

fau-lap.github.io/NOMAD-CAMELS/

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