



A Configurable Application for Measurements, Experiments and Laboratory Systems

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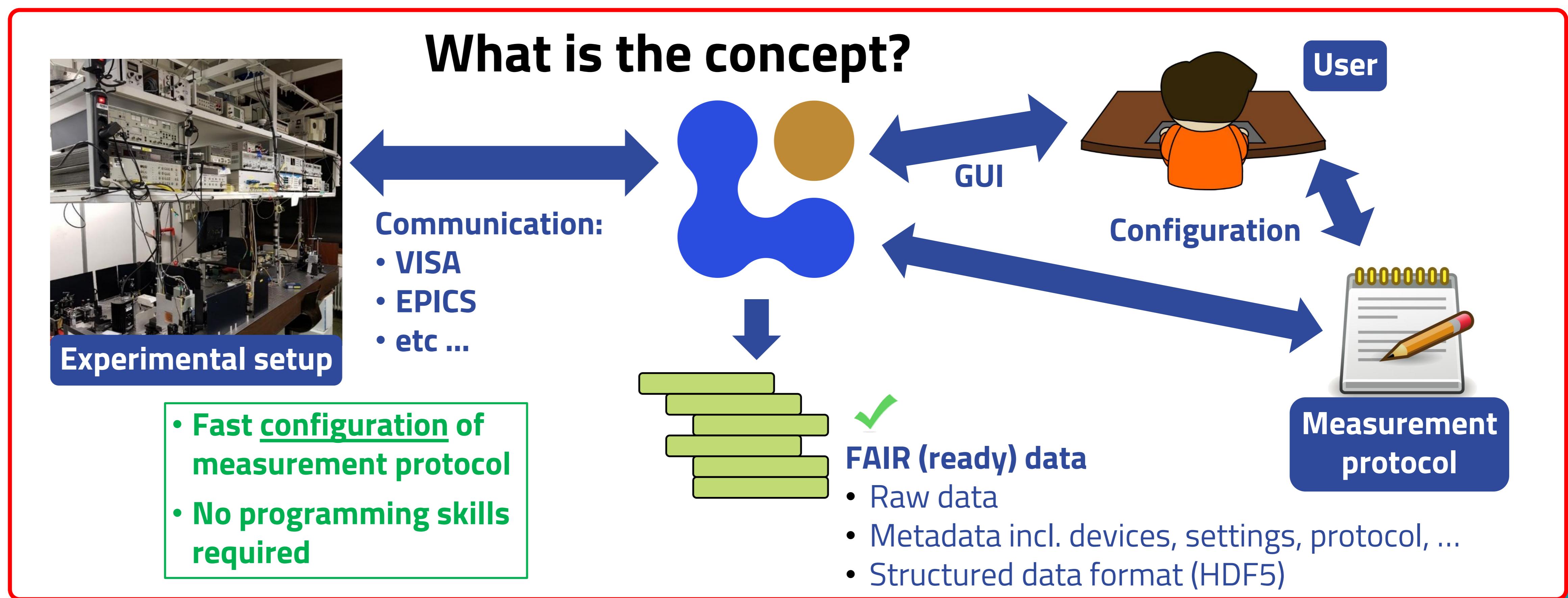
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What does it look like?

The screenshot displays the following windows:

- Manage Instruments - NOMAD-CAMELS:** Shows a list of available and installed instruments (e.g., DAQ_custom_device, PID, PID_EPICS, agilent_34401, brucker_magnect_ni_daq, demo_device, gap_burner_arduino, keithley_2000, keithley_237, keysight_b2912, keysight_e5270b) with their versions.
- NOMAD-CAMELS - Configurable Application for Measurements, Experiments and Laboratory-Systems:** Main application window with tabs for **Manage Instruments**, **Manual Control**, and **Measurement Protocols**. It shows a **Sequence** panel with steps like **move up**, **move in**, **move down**, **move out**, and a **Set Channels (Set_Channels)** configuration panel.
- L_T_const_V_down - Measurement Protocol - CAMELS:** A detailed view of a measurement protocol named **L_T_const_V_down** with sections for **General Configuration** (Protocol Name, Sequence, Set Channels), **Variables** (T_low, points, v_max, v_min), and **plot-overview** (plot-type, name, fit).

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?

The screenshot shows:

- "classical" data:** A tree view of measurement data (TLM.h5, IV_2023-03-20T1...) containing matrices and line plots.
- metadata:** A code editor displaying Python scripts for metadata processing, including functions like **create_plots_simple_sweep**, **process**, and **protocol_overview**.

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

Easy to use

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

Contact

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

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