

# PYAML CONFIGURATION

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Exploratory  
Projects

## WHY TALK ABOUT THIS?

- To be able to test anything you need to first set up the configuration for your machine.
- A lot of time can be wasted here...
- Some labs seem to already have this information stored outside of MML (configuration databases, Tango device servers...) but for others MML is currently the main source.
- In MML this roughly corresponds to AO & AD (+ maybe some other parts).
- How do we want this to work in the future?

# THOUGHTS AFTER EXPLORATORY PROJECTS

- User-friendliness relies on easy way of grouping elements (families) → difficult to make families = difficult to use.
- Configuration independent of lattice model → pyAML can be used solely as a python interface to the control system (e.g. for attracting new user communities).
- Separation between “static” and “dynamic” configuration (e.g. channel names are static whereas RF step for measuring chromaticity in different modes is not).
- Be able to quickly modify the configuration in the control room if wrong → separation between configuration and source code.
- Clear which minimal configuration required to start testing (e.g. conversion factors not required to test ORM on real machine).

# THOUGHTS AFTER EXPLORATORY PROJECTS

- Configuration shareable without having to share whole middle layer repository → configuration available without having to run the code.
- Clear separation between “core” and facility-specific parts → for collaborations perhaps not all configuration is required to share?
- Power supply configuration should be part of configuration and not just LOCO setup.
- Standard for the configuration which is still flexible and allows for full use of control system functionality.
- Options for both text-based configuration (yaml, toml) or configuration database (e.g. new users be able to test without having to first spend time setting up a database).

## SUGGESTION FOR WHAT TO DO

- Review current middle layer configuration for different machines → we have started looking at this by generating AO & AD and converting to json.
- Based on this come up with a standard for the configuration.
- Initially, this can just be some minimum required configuration to lower the threshold for all labs to be involved in testing.