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Standardised Metadata Provision in the Communication Protocol SECoP - SECoP@HMC

Monday 4 November 2024 16:00 (1 hour)

The Sample Environment Communication Protocol (SECoP) provides a generalized way for controlling measurement equipment –with a special focus on sample environment (SE) equipment [1,2]. In addition, SECoP holds the possibility to transport SE metadata in a well-defined way.

SECoP is designed to be

- simple to use,
- inclusive concerning different control systems and control philosophies and
- self-explaining providing a machine readable description of all available data and metadata.

The project SECoP@HMC focuses on the standardised provision of metadata for typical SE equipment at large scale facilities (photons, neutrons, high magnetic fields) and on standardized metadata storage. The fact that SECoP is self-explaining and machine-readable favours the automated interpretation of data and metadata. With the latest definition of SECoP, we were able to integrate the use of vocabularies or glossaries.

With the ongoing development of SECoP and the provision of several tools for its easy implementation, a complete standardized system for controlling SE equipment and collecting and saving SE metadata is available and usable for experimental control systems. This approach can be applied to other research areas as well.

In this presentation we will report on the current status of the project SECoP@HMC.

[1] K. Kiefer, et al. (2020). An introduction to SECoP –the sample environment communication protocol. Journal of Neutron Research, 21(3-4), pp.181–195

[2] <https://github.com/sampleenvironment/secop>

Please specify "other"

In addition, please add 3 to 5 keywords.

sample environment, communication protocol, machine readable

Please specify "other"

For whom will your contribution be of most interest?

Scientists and technicians who maintain and operate research infrastructure for data generation

Please assign yourself (presenting author) to one of the following groups.

Scientists and technicians who maintain and operate research infrastructure for data generation

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