

Integrating NOMAD Lab into a Bluesky Beamline

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It is an ongoing challenge to adhere to FAIR data principles in experiments at the HZB EMIL endstations. Data reusability and accessibility are particularly hard to achieve with tiled databases on a segmented network architecture.

To remedy this, we are in the early stages of using a NOMAD oasis. NOMAD is a free and open source database packaged with a dynamic web client. It supports indexing with custom schema and can host analysis software ran from jupyter notebooks. The API allows bluesky output to be uploaded directly via callbacks or a tiled subscription and metadata can be pulled out of the documents or supplied from a sample questionnaire completed by the user at the start of the experiment.

In this talk I will share the current state of this project at EMIL, and discuss the potential improvements to user experience that NOMAD can deliver on our bluesky endstations.

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