

Writing HDF5 in Pure Java: Practical Guide

Tuesday 27 May 2025 11:00 (25 minutes)

This contribution presents our experience using a pure Java implementation of the HDF5 file format to support metadata collection at the P05 beamline at Hereon, DESY. Since 2016, we have relied on Java-based solutions to generate HDF5 files for hundreds of experiments with minimal maintenance overhead.

We will provide a practical overview of how to use the Java HDF5 library effectively in the context of beamline operations, covering:

- Creating and organizing datasets and groups
- Handling compound datatypes and attributes
- Performance considerations and memory management
- Integration with control systems such as Tango and TINE

This talk is intended for developers and beamline scientists interested in building robust data workflows using Java, without relying on native code bindings. The approach also supports long-term maintainability and ease of integration into existing Java-based infrastructures.

May we record your session?

Yes

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