

HDF5 File Format

Hierarchical Data Format (**HDF**) is designed to store and organize large amounts of data. Developed by the U.S. National Center for Supercomputing Applications it has since found use across many scientific fields.

The format continues to be supported by the HDF group, a non profit organization dedicated to the production and maintenance of the open source format.

HDF easily supports n-dimensional datasets, is a portable self describing format with no vendor lock in. This will facilitate users taking greater control of their own data, allowing them full access to the data collected without the need for any additional applications.

HDF5 in Biomechanics

ISB, ESB, ESMAC, GCMAS, and ASB Guidelines for Open Data Sharing in the Human Movement Sciences:

“The choice of file format is a fundamental yet frequently overlooked consideration that directly impacts the findability, interoperability, and long-term reusability of shared human movement datasets... In this regard, the Hierarchical Data Format version 5 (HDF5) merits particular attention as a candidate for standardized data exchange in the human movement sciences.”

HDF5 Documentation

A detailed description of our implementation of HDF5 can be found here, detailing the design decisions made.

Working With HDF5

Conducting processing using HDF5 has been made easy but the plentiful libraries provided for many programming languages from Python to C++, the file can also easily be read using the HDF groups on application HDFView

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