Hierarchical Data Format Version 5 (HDF5)

HDF5 is a unique high-performance technology suite that consists of an abstract data model, library, and file format for storing and managing extremely large and/or complex data collections. The technology is used worldwide by government, industry, and academia in a wide range of science, engineering, and business disciplines.

Advantages of HDF5

- Versatile data model that can represent very complex, heterogeneous data objects and a wide variety of metadata through an unlimited variety of datatypes
- Ready for high speed raw data acquisition
- Portable and extensible with no limits on file size, allowing applications to evolve in their use of HDF5
- Self-describing, requiring no outside information for applications to interpret the structure and contents of a file
- Robust software ecosystem of open source tools and applications for managing, manipulating, viewing, and analyzing data
- Architecturally independent software library that runs on a wide range of computational platforms (from laptops to massively parallel systems) and programming languages (including C, C++, Fortran 90, and Java interfaces)
- Advanced performance features that allow for access time and storage space optimizations through customizable product packaging, compression, and encryption
- Long-term data archiving solution

In addition to ensuring the sustained development and accessibility of the HDF format, The HDF Group also provides expert consulting, training, and support.