HDF5 is a [unique technology](https://support.hdfgroup.org/about/hdf_technologies.html) suite that makes possible the management of extremely large and complex data collections.

HDF5 consists of:

• A File Format for storing HDF5 data.

• A Data Model for logically organizing and accessing HDF5 data from an application.

• The Software (libraries, language interfaces, and tools) for working with this format.

The two primary objects in the HDF5 Data Model are groups and datasets:

group: a grouping structure containing instances of zero or more groups or datasets, together with supporting metadata.

dataset: a multidimensional array of data elements, together with supporting metadata.

HDF5 simplifies the file structure to include only two major types of object

* Datasets, which are multidimensional arrays of a homogeneous type
* Groups, which are container structures which can hold datasets and other groups