



The HDF Group



H5Edit Tool

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Needs for a File Editor

- Currently, a user has to write and compile an HDF5 application to do some simple editing tasks. E.g.,
 - Add an attribute to an existing dataset in an HDF5 file that is needed by a visualization tool.
 - Change the name of an existing attribute because of typos in the creation program instead of recreating the entire HDF5 data file.



H5edit: an HDF5 File Editing Tool

- A tool to perform operations on HDF5 objects in an HDF5 file
- Initial functions:
 - create: create a new attribute in an object
 - delete: delete an existing attribute from an object
- Future functions:
 - rename: modify the name of an existing attribute
 - modify: modify the value of an existing attribute
 - copy: copy an existing attribute from one object to another object
 - move: move an existing attribute from one object to another object
- RFC: <http://www.hdfgroup.org/pubs/rfcs/>



Implemented

- Create and Delete attribute commands
- Datatype supported:
 - All integer types: native int, big or little endians int, long, long long, short, ...
 - All float types: float, double, long double, ...
 - Strings type: null-terminated strings
- Data space:
 - SCALAR
 - SIMPLE (Multiple dimensions)



Default Values

- If target object type is not specified, default value is DATASET
- If datatype is not specified, default value is Native Float
- If dataspace is not specified, default value is SCALAR



Examples of Using Default Values

- This command creates a floating point, scalar attribute called *km2ml* in the dataset called */g1/dataset2* in the *highway.h5* file:
 - `h5edit -c "DATASET /g1/dataset2
ATTRIBUTE km2ml {DATATYPE
H5T_NATIVE_FLOAT DATASPACE SCALAR
DATA {0.6}}"` *highway.h5*



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- It can be simplified as:
 - `h5edit -c "/g1/dataset2 km2ml
{DATA{0.6}}"` *highway.h5*



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 - `h5edit -c "DATASET /g1/dataset2
ATTRIBUTE km2ml {DATATYPE
H5T_NATIVE_FLOAT DATASPACE SCALAR DATA
{0.6}}"` *highway.h5*
- It can be simplified as:
 - `h5edit -c "/g1/dataset2 km2ml {DATA
{0.6}}"` *highway.h5*
- And can be further reduced to:
 - `h5edit -c "/g1/dataset2 km2ml {{0.6}}"`
highway.h5



Possible Next Features to Implement

- Compound data types
- CHANGE: change the name of an existing attribute
- MODIFY: modify the value(s) of an existing attribute
- MOVE: move an existing attribute to a new location (e.g., a different dataset or group)



H5Edit Resources links

- H5Edit information
 - <ftp://hdfgroup.uiuc.edu/pub/outgoing/NPOESS/h5edit/>
- H5Edit Command Page
 - <ftp://hdfgroup.uiuc.edu/pub/outgoing/NPOESS/h5edit/h5edit.pdf>
- H5Edit User Guide
 - ftp://hdfgroup.uiuc.edu/pub/outgoing/NPOESS/h5edit/H5edit_User_Guide.pdf
- H5Edit Source Code
 - <ftp://hdfgroup.uiuc.edu/pub/outgoing/NPOESS/h5edit/h5edit.tar.gz>