

Extracting Data from an HDF5 File

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User Guide: HDF5 Command-line Utilities

Selecting the right tool

Extracting data: h5dump or h5ls?

Several command-line utilities can be used to extract data or metadata from a file. The following information can guide you in selecting the most appropriate tool.

All Command-line Utilities

All of the HDF5 command-line utilities:

- Are scriptable; they can be embedded in scripts to perform one step in a multi-step process.
- Are free-standing; they can be used without invoking the HDF5 library.

Related Topics

Using h5dump

Using h5dump (concept topic)

Syntax

```
h5dump OPTIONS file
```

Discussion

h5dump enables the user to examine the contents of an HDF5 file. h5dump can present information in human-readable form, in XML, or in a binary format.

The contents of one or more specified objects can be printed in human-readable form to standard output (also called `stdout`); for example, the data may be displayed on a computer screen. Alternatively, the data may be written to an ASCII, XML, or binary file for examination or manipulation with other tools.

Options

h5dump offers a wide array of options, many of which can be used in combination.

Option	Short Form	Description
--help	-h	Print help message and exit.
--version	-V	Print version number and exit.
--contents	-n	Print list of file contents and exit.
--bootblock	-B	Print the contents of the boot block. Then, to make this a more substantial cell, another random sentence,
--header	-H	Print the header only; no data is displayed.

Option	Short Form	Description
--onlyattr	-A	Print the header and value of attributes; data of datasets is not displayed.
--object-ids	-i	Print the object identifiers.
--string	-r	Print 1-byte integer datasets as ASCII.
--escape	-e	Escape non-printing characters.
--attribute=P	-a P	Print the specified attribute.
--dataset=P	-d P	Print the specified dataset.
--noindex	-y	Do not print array indices with data.
.		<< 20 more options to insert >>
--		Indicates that the following argument is not an option. E.g., to dump a file called <code>-f</code> , use <code>h5dump -- -f</code> . (Required only when name of file to be examined starts with a dash (-), which could confuse the tool's command-line parser.)
file		Names the file to be examined.
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Related Topics

Using h5ls

Using h5ls (concept topic)

Syntax

```
h5ls [OPTIONS] file [OBJECTS]
```

Discussion

h5ls lists selected information about objects in an HDF5 file.

The information displayed by h5ls is presented in human-readable form and printed to standard output (also called stdout); for example, the information may be displayed on a computer screen. Alternatively, the information may be written to an ASCII file.

Related Topics

[Using h5dump](#) on page 3 | [Selecting the right tool](#) on page 3 | [HDFview](#) on page 4

HDFview

HDFview

There is also a visual tool, HDFview, that can be used by a user who prefers to work with a graphic interface. While the command-line utilities are distributed with the HDF5 library, HDFview is distributed separately: <http://www.hdfgroup.org/hdf-java-html/hdfview/>.

HDVFview is an excellent choice when a user wishes to browse a file and can be used to extract raw data from the file. It is not scriptable, however, which may become time consuming when working with many different datasets or files.

Related Topics

Reference Manual: HDF5 Command-line Utilities

Reference: h5ls

`h5dump` enables the user to examine the contents of an HDF5 file by dumping those contents, in human readable form, to the screen or to a file.

Syntax

(`h5ls` syntax)

Discussion

`h5ls` prints selected information about file objects in the specified format.

`h5ls ...`

Further exposition

Options

`h5ls` offers a wide range of options, many of which can be used in combination:

Related Topics