

h5augjpss

Version: 1.0

Syntax:

`h5augjpss [options] [xml file] file`

Purpose:

`h5augjpss` is a tool that will modify a JPSS HDF5 file by adding associated data or metadata or by hiding HDF5 elements in order to make the file accessible to netCDF based applications and tools such as `ncdump`. The purpose of the tool is to increase access to the JPSS files by netCDF based tools that require compliance with the netCDF Data model.

Description:

`h5augjpss` will add metadata or data to the JPSS HDF5 file for certain options and hide HDF5 elements not supported by netCDF applications for other options.

Options that add data or metadata:

- o2 Adds metadata from JPSS XML product file
- o3 Adds geo-location datasets from file in `N_GEO_Ref` attribute

Options that hide HDF5 elements unknown to netCDF-4 or netCDF-applications:

- o1 Hides `/Data_Products` group containing reference types
- o4 Adds links to datasets in `/All_Data/...` group and hides group structure

Options to undo hiding of HDF5 elements:

- r1 Reverses hiding of `/Data_Products` group
- r4 Reverses hiding of `/All_Data` group structure and removes the added links

Requirements:

All working options require the name of a JPSS Product file as the final command line argument to the `h5augjpss` command. If the argument includes a full or relative path to the file, the file in that location will be used. If the argument is the filename only and `H5AUGJPSS_DATADIR` is defined in the environment, `$H5AUGJPSS_DATADIR` will be searched for the file followed by the current working directory.

Option `-o2` requires the name or path of an JPSS XML product file as the second to last argument, with the locations searched in the same order.

Option `-o3` requires a JPSS geo-location product file in the same location as the JPSS product file. The name of this file is specified in an `N_GEO_Ref` attribute in the JPSS product file.

The default command with no options requires all of the files described above

Default:

`h5augjpss [xml file] file` with no options will execute options `-o1`, `-o2` and `-o3`.

Options:

- | | |
|---|--|
| <code>-h</code> or <code>--help</code> | Print a usage message and exit. |
| <code>-V</code> or <code>--version</code> | Print version number and exit. |
| <code>-on</code> or <code>-ln</code> | Execute specified actions. <code>-o</code> options may be run separately or combined in any order: |
| <code>n=1</code> | Remove the link to the <code>/Data_Products</code> group with objects unknown to netCDF-4, making the group unavailable to the HDF5 library and allowing netCDF-4 based tools and applications to open the file. |
| <code>n=2</code> | Update JPSS product file with dimensions and other attribute information from the JPSS XML product file according to the specifications in <code>h5augjpss-design.pdf</code> document. |
| <code>n=3</code> | Update JPSS product file with geo-location information from file specified in its <code>N_GEO_Ref</code> attribute, unless the datasets are already in the file. |
| <code>n=4</code> | Create links in <code>"/</code> to datasets in <code>/All_Data/<subgroup></code> and remove the link to the <code>/All_Data</code> group. This option combined with option 1 removes access to all groups in the file. |
| <code>-rn</code> | Undo actions to hide HDF5 elements in options 1 and 4 |
| <code>n=1</code> | Restore link to the <code>/Data_Products</code> group in the JPSS product file (reverse of option <code>-o1</code>). |
| <code>n=2</code> | Restore the link to the <code>/All_Data</code> group in the JPSS product file and remove links in <code>"/</code> to datasets originally in <code>/All_Data/<subgroup></code> (reverse of option <code>-o4</code>). |

Exit Status:

- 0 Succeeded.
- 1 Failed.

Further Information:

For more detailed information regarding this tool, please see the JPSS project documentation at <http://www.hdfgroup.org>.

Please contact help@hdfgroup.org with any questions regarding this tool.

Example Commands:

`h5augjpss -o1 <JPSS product file name>`

allows netCDF-4 based tools and applications to open <JPSS product file name>

`h5augjpss -o2 <JPSS XML product file name> <JPSS product file name>`

adds dimensions and other information from the JPSS XML product file

`h5augjpss -o3 <JPSS product file name>`

checks JPSS product file for Height, Latitude and Longitude datasets and if not found copies them from the file specified in the product file's N_GEO_Ref attribute

`h5augjpss -o4 <JPSS product file name>` allows tools such as IDV that don't support HDF5 groups to open the modified file.

`h5augjpss -o1 -o2 -o3 -o4 <JPSS XML product file name> <JPSS product file name>`

executes all of the four modifications above.

`h5augjpss <JPSS XML product file name> <JPSS product file name>`

executes options -o1 -o2 -o3 as described above.

`h5augjpss -r1 <JPSS product file name>`

reverses the effect of -o1, replacing the original link to restore access to the /Data_Products group.

`h5augjpss -r4 <JPSS product file name>`

reverses the effect of -o4, removing the added links and replacing the original link to restore access to the /All_Data group.