

RFC: nagg -l option to specify characteristics of output files

Larry Knox
Albert Cheng
Elena Pourmal

1. Purpose

This RFC describes gathering characteristics for nagg output files from an example NPP data product file. This functionality would be started with the -l (as in -like, a lower case L) nagg command line option or by default when none of -l, -t, -n, or -A are supplied. The first NPP data product file encountered by nagg in the output directory would be used as the template for the operation.

2. Introduction

The proposed -l option would direct nagg to create its output files based on the characteristics found in an NPP data product example file. The table below shows the characteristics nagg would look for and how the characteristics will be determined.

Characteristics	Comments
Products to be included	Sub-groups of /Data_Products are named with the same names as the products. These can be converted to DPIDs for the -t list.
Number of granules of each product	Each <product name>_Aggr dataset has an attribute "AggregateNumberGranules" containing this information. The number of granules can be overridden with -n or -A.
Geolocation	The geolocation information can be present as a sub-group of /Data_Products or in another file specified by the /N_GEO_Ref attribute. If a geolocation sub-group is present in addition to another product sub-group, or if the /N_GEO_Ref attribute exists, geolocation should be "yes". If a geolocation sub-group is the only product sub-group present, geolocation should be the corresponding DPID. Otherwise geolocation should be "no".
Packaging	Files with multiple sub-groups of /Data_Products are packaged. The only possible unpackaged arrangement that will be detected from an example file is a single data product with separate geolocation data.
Origin	The origin can be found in the /N_Dataset_Source attribute.
Domain	The domain can be found in the "N_Processing_Domain" attribute of each product sub-group of /Data_Products.

3. Requirements

Here are some requirements for how nagg should operate.

- If `-l <filepath>` is found in the nagg command line, open `<filepath>` and determine the 6 characteristics listed above for the output files.
- If neither `-l` or `-t` are found in the nagg command line, open the first NPP data product file encountered in the output directory and determine the 6 characteristics listed above for the output files.
- In the event one of the above is true and any of the command line options `-A`, `-n`, `-g`, or `-t` are found, override any of the 6 characteristics according to the command line option.
- Return an appropriate error message if the file cannot be opened or no NPP data product file is encountered in the output directory.

4. Update for Reference Manual

These are the current and proposed reference manual entries for the `-l` option and making the output like the first file encountered when neither `-l` or `-t` are found.

Current Entry

`-l file`

(To be supported in future implementation.)

Package like the example file in number or type list. Options on the command line override the example. If both `-l` and `-t` are omitted, then the first NPP data product file encountered will be used as the example file.

Proposed Entry

`-l file`

Package like the example file in number or type list. Options on the command line override the example. If both `-l` and `-t` are omitted, then the first NPP data product file encountered will be used as the example file.

5. User Guide Additions

6. Test Specification

The `-A` and `-n` command line options should not appear together; an error should be returned if they do.