

Dark OMPS Generator Script (DOGS) for the Ozone Mapping and Profiler Suite (OMPS) Dark Table Production

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Summary

The Dark OMPS Generator Script (DOGS) is a Perl wrapper developed by the NOAA/NESDIS/STAR Algorithm Integration Team (AIT) to facilitate the Ozone Mapping and Profiler Suite (OMPS) Dark Table production process. Weekly Dark Table updates are important for correct radiance values and accuracy of other downstream ozone operational products which use either the OMPS Nadir Profiler (NP) or OMPS Nadir Mapper (NM) data.

What is DOGS?

DOGS is a wrapper script to run NASA program generated executables (PGEs). The wrapper script performs these major functions:

- Input and ancillary data are gathered and linked into processing directories.
- Program control files (PCF) are generated based on date.
- Environmental variables are sourced and setup.
- Output data are copied to directories specified by the user.

Purpose

Currently, Dark OMPS Tables are generated manually on the NASA PEATE system on a weekly basis. DOGS will automate the table production and allow the process to transition to NOAA's Government Resources for Algorithm Verification, Independent Test and Evaluation (GRAVITE) operational system.

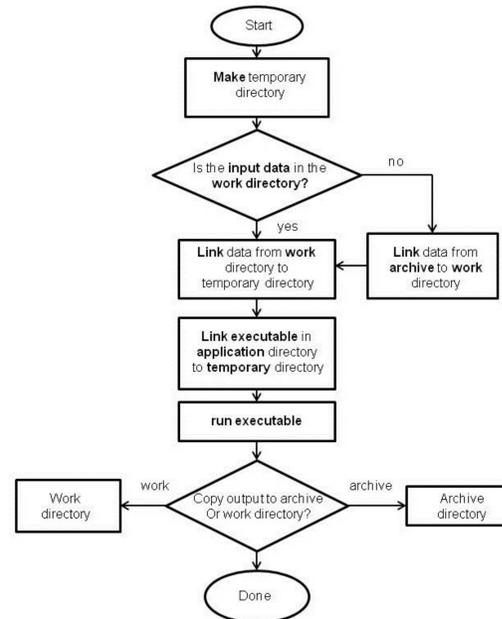
STAR AIT

STAR AIT provides expertise on integration of JPSS algorithms into operational systems and performs the following tasks:

- Code Testing and Integration in Algorithm Development Library (ADL)
- Communication with Science Teams and DPES,
- Troubleshooting, Change Request Submission, Consultancy to Science Teams and DPES
- Facilitation of Lifecycle Reviews

Input Output Data Flow

Below is the process flow diagram showing the creation and organization directories needed to run DOGS and how input and output data are linked in the directory structures. This diagram is a visual aid to users of DOGS to understand how the different directories listed in their user configuration files are used.



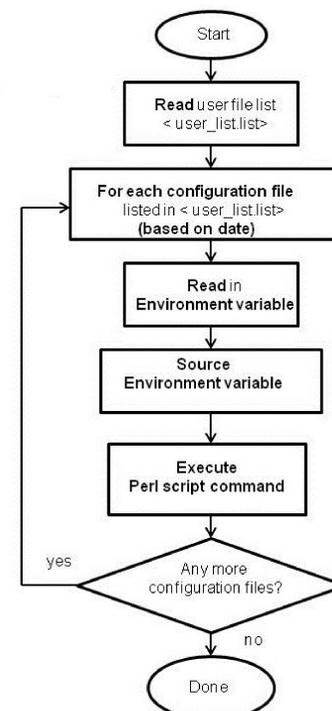
Wrapper Shell Script

GRAVITE_transition_dark_OMPS_processing.sh

This is a flow diagram of the **main executable** that creates the OMPS dark tables. Users only need to type this one executable command to generate the OMPS dark tables. This executable shell script sets up environmental variables and executes the Perl script shown on the right column of this poster.

This diagram shows how the program uses the file **user_list.list** which contains multiple **configuration files**.

This flow chart uses the example that each configuration file is dependent on date. The configuration file actually has many parameters, some of which are: date, output directories, and PGEs.



Perl Script

dark_OMPS_setup_and_execute_scripts.pl

This is the script that runs the PGEs. Based on parameters listed in the user configuration file (user_config.cfg), this script will set up input, execute PGEs, and copy output files to the appropriate directories.

