Release notes for MSG Toolbox
version 2.0, released on 9 October 2016

MSG Toolbox is a software intended to prepare operational LSA-SAF products for further analysis and use in GIS and Remote Sensing software, in particular by preparing temporal composites and/or by remapping to geographic lat/lon coordinate system and reformatting.

The main change in this second version is the support for LSA-SAF products with coverage of the full MSG Disk, as released since the LSA-SAF system update in late Oct 2015.

In addition, the static reference land-sea mask was updated, several smaller issues were addressed and the user interface was extended for managing the remapping Grids (including a path migrating them from version 1.0) and replicating processing scenario configurations.

Supported LSA-SAF products:

The list of products and layers that are supported in the *MSG Toolbox* are the same as in the first version. The reference evapotranspiration product (METREF), that was additionally released since the previous version of the toolbox, is not supported.

Abbreviation	Frequency	Comments
FRP-PIXEL	15 min	Not supported yet
FRP-GRID	Hour	Not supported yet
FRM-F024	Daily	Except the risk classes and reference temperature (TRef)
FVC	Daily & D10	✔
LAI	Daily & D10	✔
FAPAR	Daily & D10	✔
SC2	Daily	Not supported yet
LST	15 min	✔
LST	Daily	Not supported yet
DSSF	30 min	✔
DSLF	30 min	✔
DIDSSF	Daily	✔ Layers missing_values_percent and max_nslots_missing are not used in the quality filtering
DIDSLF	Daily	✔ Layers missing_values_percent and max_nslots_missing are not used in the quality filtering
ALBEDO	Daily & D10	✔
Spectral albedo	Daily	✔ Except for BRDF model parameters (K012) and covariance matrix (CK).
ET	30 min	✔
DMET	Daily	✔
METREF	Daily	Not supported yet

Remapping

The remapping from geostationary view to regular geographic lat/lon works in the same way (separate preparation of remap grids for subsequent use in processing workflows), with a few options for advanced users (e.g. masking pixels near the edge of the MSG disk).

This version of the MSG Toolbox now supports input products that cover the full MSG disk. When both full-disk and regional products are available (and configured to be used) for the same time slot, the full-disk products take priority and regional ones are skipped.

The reference land-sea mask is now based on ESA's GlobCover version 2.2 instead of the European Commission Joint Research Centre's GLC2000.

Temporal compositing, format conversion, quality filtering

Unchanged compared to version 1.0

Main limitations

- The second version only works only under MS Windows.
- The toolbox does check on the algorithm version that was used to produce the input product (stored as PRODUCT_ALGORITHM_VERSION in the HDF5 metadata). As such, it may give errors or incorrect results when working on product algorithm versions prior to June 2015, in particular pre-operational versions. You are encouraged to check LSA-SAF web site for the version history details of each type of product.

Other changes & issues fixed

- Description on how to migrate from version 1.0 to version 2.0 (section 2.3 of the manual).
- Added functionality for replicating workflow scenarios (main configuration files).
- Added functionality for importing target Grids that were previously saved, recalling the settings used to create those grids (even when created in version 1.0 of the toolbox).
- Renamed "Regions of Interest" tab to "Grids" to better reflect that it serves to manage (import, create) grids for remapping.
- Issues fixed with temporary work folder selection, study area selection on the map and the combined use of maximum and minimum composites