

Sentinel 3 – File name conventions and product folder description for OLCI and SLSTR

OLCI:

The file naming convention for OLCI products is identified by the sequence of fields described here:

MMM_OL_L_TTTTTT_yyyymmddThhmmss_YYYYMMDDTHHMMSS_YYYYMMDDTHHMMSS_[instance ID]_GGG_[class ID].SEN3

- **MMM** is the mission ID:
 - S3A = SENTINEL-3A
 - S3B = SENTINEL-3B
 - S3_ = for both SENTINEL-3A and 3B
- **OL** is the data source/consumer (OL = OLCI)
- **L** is the processing level
 - "0" for Level-0
 - "1" for Level-1
 - "2" for Level-2
 - underscore "_" if processing level is not applicable.
- **TTTTTT** is the Data Type ID
 - Level-0 OLCI data:
 - "EFR___" = full resolution ISPs
 - "CR1___" = calibration with spectral relaxation
 - "CR0___" = calibration with no spectral relaxation.
 - Level-1 OLCI data:
 - "EFR___" = TOA radiances at full resolution
 - "ERR___" = TOA radiances at reduced resolution
 - "RAC___" = dark offset and gain coefficients from radiometric calibration
 - "SPC___" = wavelength characterisation from spectral calibration
 - "INS_AX" = instrument characterisation auxiliary data
 - "EFR_BW" = browse product derived from "EFR___"
 - "ERR_BW" = browse product derived from "ERR___".
 - Level-2 OLCI data:
 - "WFR___" = full resolution ocean colour, water and atmosphere parameters
 - "WRR___" = reduced resolution ocean colour, water and atmosphere parameters
 - "LFR___" = full resolution land colour and atmosphere parameters
 - "LRR___" = reduced resolution land colour and atmosphere parameters
 - "ATP_AX" = atmosphere parameters auxiliary data

- "AER_AX" = aerosol climatology auxiliary data
 - "LAP_AX" = land aerosol parameter auxiliary data
 - "LVI_AX" = land vegetation index auxiliary data
 - "WFR_BW" = browse product derived from "WFR___"
 - "WRR_BW" = browse product derived from "WRR___"
 - "LFR_BW" = browse product derived from "LFR___"
 - "LRR_BW" = browse product derived from "LRR___".
- **yyyymmddThhmmss** is the sensing start time
 - **YYYYMMDDTHHMMSS** is the sensing stop time
 - **YYYYMMDDTHHMMSS** is the product creation date
 - **[instance ID]** The field consists of 17 characters, either uppercase letters or digits or underscores "_".
The instance id fields include the following cases, applicable as indicated:
 1. Instance ID for the instrument data products disseminated in "stripes":

Duration, "_", cycle number, "_", relative orbit number, "_", 4 underscores "_"
DDDD_CCC_LLL_____
 2. Instance ID for the instrument data products disseminated in "frames":

Duration, "_", cycle number, "_", relative orbit number, "_", frame along track coordinate
DDDD_CCC_LLL_FFFF
 3. Instance ID for the instrument data products disseminated in "tiles".
Two sub-cases are applicable:
 - a) tile covering the whole globe:
"GLOBAL_____"
 - b) tile cut according to specific geographical criteria:
Tile Identifier
tttttttttttttttt
 4. Instance ID for auxiliary data:
17 underscores "_"
- **G** identifies the centre which generated the file
 - **[class ID]** identifies the class ID for instrument data products with conventional sequence "P_XX_NNN"
where:
 - P indicates the platform (O for operational, F for reference, D for development, R for reprocessing)
 - XX indicates the timeliness of the processing workflow (NR for NRT, ST for STC, NT for NTC)

- NNN indicates the baseline collection or data usage.
- **.SEN3** is the filename extension.

Example of filename:

S3A_OL_1_EFR____20151102T094537_20151102T094837_20151103T075458_0180_090_022_____LN2_D_NT_001.SEN3

SLSTR

SLSTR – LEVEL 1:

The SLSTR Level-1 product package is composed of one information package map, also called a manifest, and several measurement and annotation data files (between 77 and 111 files depending on the processing parameters).

For measurement files, *SL_1_RBT*, the Level-1B product includes between 22 and 34 radiance and brightness temperature measurements datasets. For nadir and oblique views, there is:

- one dataset for each channel S1 to S3, corresponding to A stripe
- up to three datasets for each SWIR channel S4 to S6, corresponding to A, B or TDI stripe
- one dataset for each thermal infra-red channel S7 to S9
- one dataset for each fire channel F1 and F2.

They contain, for each pixel on the full resolution grid and for each un-regridded pixel (also called orphan pixels), the radiance or brightness temperature and their associated exception flags. These files are all written in netCDF 4 format and include dimensions, variables and associated attributes.

Annotation data files are also written in netCDF 4 format. Their number and dimensions are described in the following table:

File Name	Dimensions	
Infrared Quality	Full resolution line; detectors and integrators	One for each view, for each channel and for each selected stripe
Global Flags Data file	Full resolution pixel grid and orphan pixels	One for each view and for each selected grid
Scan, pixel and detector number	Full resolution pixel grid and orphan pixels	One for each view and for each selected grid
FR Cartesian Coordinates	Full resolution pixel grid and orphan pixels	One for each view and for each selected grid

Tie points Cartesian Coordinates	Tie-point grid (1 km along-track and 16 km across-track)	One file
FR Geodetic Coordinates	Full resolution pixel grid and orphan pixels	One for each view and for each selected grid
Tie points Geodetic Coordinates	Tie-point grid (1 km along-track and 16 km across-track)	One file
Time	Full resolution line	One for each selected grid
Tie points Solar and Satellite Geometry	Tie-point grid (1 km along-track and 16 km across-track)	One for each view
Meteorological Parameters	Tie-point grid and specific meteorological dimensions	One file

Table 1: Description of the annotation data files included in the SLSTR Level-1 product

Associated with these files, an information package map describes, for each Level-1 file, the content unit identifier and description, and the type of data contained in each file.

A manifest file in XML format gathers together metadata associated with the instrument and the processing.

SLSTR – LEVEL 2:

The file naming convention of SLSTR products ([see this document for more details](#)) is identified by the sequence of fields described below:

MMM_SL_L_TTTTTT_yyyymmddThhmmss_YYYYMMDDTHMMSS_YYYYMMDDTHMMSS_[instance ID]_GGG_[class ID].SEN3

where:

- **MMM** is the mission ID:
 - S3A = SENTINEL-3A
 - S3B = SENTINEL-3B
 - S3_ = for both SENTINEL-3A and 3B
- **SL** is the data source/consumer (SL = SLSTR)
- **L** is the processing level
 - "0" for Level-0
 - "1" for Level-1

- "2" for Level-2
- underscore "_" if processing level is not applicable
- **TTTTTT** is the data Type ID
 - Level 0 SLSTR data:
 - "SLT____" = ISPs.
 - Level-1 SLSTR data:
 - "RBT____" = TOA Radiances and Brightness Temperature
 - "RBT_BW" = browse product derived from "RBT____".
 - Level-2 SLSTR data:
 - "WCT____" = 2 and 3 channels SST for nadir and along track view
 - "WST____" = L2P sea surface temperature
 - "LST____" = land surface temp
 - "WST_BW" = browse product derived from "WST____"
 - "LST_BW" = browse product derived from "LST____".
- **yyyymmddThhmmss** is the sensing start time
- **YYYYMMDDTHHMMSS** is the sensing stop time
- **YYYYMMDDTHHMMSS** is the product creation date
- **[instance ID]** The field consists of 17 characters, either uppercase letters or digits or underscores "_".
 The instance id fields include the following cases, applicable as indicated:
 1. Instance ID for the instrument data products disseminated in "stripes":

 Duration, "_", cycle number, "_", relative orbit number, "_", 4 underscores "____"
 DDDD_CCC_LLL_____
 2. Instance ID for the instrument data products disseminated in "frames":
 Duration, "_", cycle number, "_", relative orbit number, "_", frame along track coordinate
 DDDD_CCC_LLL_FFFF
 3. Instance ID for the instrument data products disseminated in "tiles".
 Two sub-cases are applicable:
 - a) tile covering the whole globe:
 "GLOBAL_____"
 - b) tile cut according to specific geographical criteria:
 Tile Identifier
 tttttttttttttttt

4. Instance ID for auxiliary data:

17 underscores "_"

- **GGG** identifies the centre which generated the file
- **[class ID]** identifies the class ID for instrument data products with conventional sequence **P_XX_NNN** where:
 - P indicates the platform (O for operational, F for reference, D for development, R for reprocessing)
 - XX indicates the timeliness of the processing workflow (NR for NRT, ST for STC, NT for NTC)
 - NNN indicates the baseline collection or data usage.
- **.SEN3** is the filename extension

Example of filename:

S3A_SL_2_LST____20151229T095534_20151229T114422_20160102T150019_6528_064_365____LN2_D_NT_001.SEN3