

OBPG SeaWiFS – Pure HDF4 data

OBPG SeaWiFS

OBPG SeaWiFS Level1

- FILENAME: S2003006001857.L1A_MLAC.hdf (ftp link: [here](#)) Filesize=200MB.

It is a pure HDF4 file, there are 6 vgroups.

Data field (inst_tlm) has 2 dimensions: 9477 (Number of Scan Lines) x 44 (44)

Data field (l1a_data) has 3 dimensions: 9477 (Number of Scan Lines) x 1285 (Pixels per Scan Line) x 8 (Number of Bands)

...

There is no clear latitude and longitude information in the file. File

There is neither a 'Fill_Value' attribute nor a 'missing value' attribute.

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
inst_tlm	long_name	SeaWiFS instrument telemetry	8-bit character	29
l1a_data	long_name	Level-1A data	8-bit character	14
	Units	radiance counts	8-bit character	16
...				

Other SeaWiFS_L1A files have similar structure

OBPG SeaWiFS Level2

- FILENAME: S1997247162631.L2_MLAC_OC.hdf (ftp link: [here](#)) Filesize=114MB.

It is a pure HDF4 file, there are 5 vgroups.

Data field (Rrs_412) has 2 dimensions: 2207 (Number of Scan Lines) x 1285 (Pixels per Scan Line).

It has 2-dimensional 'Latitude' and 'Longitude' fields: 2207 (Number of Scan Lines) x 1285 (Number of Pixel Control Points) and One pair of latitude and longitude for the whole file.

Latitude Units: degrees; Longitude Units: degrees. It does not follow CF conventions.

A value of -32767 is commonly used for 'Fill_Value.' But name for fillvalue attribute does not follow CF conventions and is called 'bad_value'

Geo Field Name	AttributeName	AttributeValue	AttributeType	AttributeArraySize
Latitude	units	degrees	8-bit character	8
Longitude	units	degrees	8-bit character	8

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
nLw_412	slope	2.0E-6	32-bit floating-point	1
	intercept	0.05	32-bit floating-point	1

Other SeaWiFS_L2 files have similar structure

OBPG SeaWiFS Level3

- FILENAME: S1999001.L3m_DAY_CDOM_cdom_index_9km.hdf (ftp link: [here](#)) Filesize=35.6MB.

It is a pure HDF4 file containing only one field: l3m_data.

Data field (l3m_data) has 2 dimensions: 2160 (fakeDim0) x 4320 (fakeDim1).

Some data field attributes are stored in file properties, like attribute 'units'

The value of attribute 'units' is blank. Type is 8-bit character and Array Size is 2.

There is no clear latitude and longitude information in the file. File attributes 'Latitude Step', 'Longitude Step', 'SW Point Latitude' and 'SW Point Longitude' should be used to calculate latitude and longitude

A value of -32767 is commonly used for 'Fill_Value.' But name for fillvalue attribute does not follow CF conventions and is called 'Fill'

DataFieldName	AttributeName	AttributeValue	AttributeType	AttributeArraySize
L3m_data	Slope	1.0	32-bit floating-point	1
	Intercept	0.0	32-bit floating-point	1

Other SeaWiFS_L3m files have similar structure