

## Preprocessed Input Data Description

### SPOT4

The Satellite Pour l'Observation de la Terre 4 (SPOT4) is a high resolution polar orbital satellite which worked for surface reflectance data from 1998 through 2002. This satellite is useful to get surface reflectance continuous data for both AVHRR and MODIS.

A 30+ years global CMG daily dataset is downloaded, composed of the following sensors: AVHRR (1981-1999), SPOT4 (1998-2002) and MODIS (2000-2010). The daily global data from MODIS and LTDR both have 3600x7200 pixels.

### Process

This product does not have processes.

The following table shows the days of the year without data.

Year	Missing Days (DOY)
1998	0-90
1999	70, 199-365
2000	
2001	1, 2, 303, 304
2002	29, 80, 133, 250, 332, 337-365

### Data Set Characteristics

Temporal Coverage	1998 - 2002
Area	Global
File Size	~9.4 GB
Projection	Latitude/Longitude WGS 1984
Data Format	HDF-EOS
Dimensions	14673 x 40320 rows/columns
Resolution	1 KM
Geographic Extent	Left: -180.0 Right : 179.991071 Top : 75.0 Bottom: -56.0
Pre-processing	ATMOS_CORREC_REF: CTIV_SMAC_V4.0 CLOUD_COVER_REF: CTIV_CLOUD_COVER_V2.0 SNOW_COVER_REF: CTIV_SNOW_ICE_COVER_V2.0 SYNTHESIS_REF: CTIV_SYNTHESIS_V1.0
Science Data Sets (SDS HDF Layers)	11
Location	/VIP/DATA/MEASURES/SPOT/SPOT-VGT/

## Layer Specifications and QA/QC Descriptions

Science Data Sets for MODIS Terra Surface Reflectance Daily L3 Global 0.05Deg CMG V005 (MOD09CMG):

Science Data Sets (HDF Layers) (21)	UNITS	BIT TYPE	FILL	VALID RANGE	MULTIPLY BY SCALE FACTOR
B0 Spectral band (430–470 nm)	Reflectance	16-bit unsigned integer	0	> 0	0.0005
B2 Spectral band (610-680 nm)	Reflectance	16-bit unsigned integer	0	> 0	0.0005
B3 Spectral band (780-890 nm)	Reflectance	16-bit unsigned integer	0	> 0	0.0005
MIR Spectral band (1580-1750 nm)	Reflectance	16-bit unsigned integer	0	> 0	0.0005
NDV	Vegetation Global Index	8-bit unsigned integer	0	> 0	NDVI = 0.004 * NDV - 0.1
SM	Status Map	8-bit unsigned integer	0	> 0	0.0001
VZA	Viewing Zenith Angle	8-bit unsigned integer	0	> 0	0.5
VAA	Viewing Azimuth Angle Grid	8-bit unsigned integer	0	> 0	1.5
SZA	Solar Zenith Angle Grid	8-bit unsigned integer	0	> 0	0.5
SAA	Solar Azimuth Angle Grid	8-bit unsigned integer	0	> 0	1.5
TG	Time Grid	8-bit unsigned integer	0	> 0	

**Table 1: Status Map QA Descriptions**

<b>Bit No.</b>	<b>Long Name</b>	<b>Bit Comb.</b>	<b>Coarse Resolution QA</b>
7	Radiometric quality for BO	0	Bad quality
		1	Good
6	Radiometric quality for B2	0	Bad quality
		1	Good
5	Radiometric quality for B3	0	Bad quality
		1	Good
4	Radiometric quality for MIR	0	Bad quality
		1	Good
3	Land/Water	0	Sea
		1	Land
2	Ice/Snow	0	Not present
		1	Ice/Snow
0-1	Clouds/Shadow or Clear	00	Clear
		10	Shadow
		01	Uncertain
		11	Cloud

**Reference:**

SPOT4 webpage, <http://eoedu.belspo.be/en/satellites/spot.htm>