Intra-ACP Climate Service and related applications (ClimSA)

Climate Station

Product Report

Version 1.2.0

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Abstract / Résumé
This document lists all the products available on Climate Station (or C-Station)

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	Details	Date
Version history		
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Contents

1. INTRODUCTION VI

1.1 APPLICABLE AND REFERENCE DOCUMENTS VI

1.2 SCOPE OF THE DOCUMENT 1

2. DATASETS DISTRIBUTED ON CLIMATE STATION 2

2.1 VEGETATION PRODUCT 2

2.1.1 Input products 2

2.2 INLAND WATER PRODUCTS 3

2.2.1 Input products 3

2.3 RAINFALL PRODUCTS 4

2.3.1 Input Products 4

2.4 RAINFALL FORECAST PRODUCTS 5

2.4.1 Input products 5

2.5 FIRE PRODUCTS 6

2.5.1 Input Products 6

2.6 MISCELLANEOUS (MONITORING & FORECAST) PRODUCTS 7

2.6.1 Input Products 7

2.7 MARINE PRODUCTS 8

2.7.1 Input Products 8

2.8 TEMPERATURE MONITORING PRODUCTS 9

2.8.1 Input Products 9

2.9 TEMPERATURE FORECAST PRODUCTS 10

2.9.1 Input products 10

2.10 ATMOSPHERE PRODUCTS 12

2.10.1 Input products 12

3. DESCRIPTION OF THE 'STANDARD' PROCESSING CHAINS 13

List of Figures and Tables

Table 1: Applicable documents vi
Table 2: Reference documents vi

ACRONYMS and DEFINITIONS

ACMAD	African Centre of Meteorological Applications for Development
AGRHYMET	Centre Régional de Formation et d'Application en Agro météorologie et Hydrologie Opérationnelle
AU	African Union
CAPC-CA	Central Africa Regional Climate Centre
CIMH	Caribbean Institute of Meteorology and Hydrology
EO	Earth Observation
EUMETSAT	European Organisation for the Exploitation of Meteorological Satellites
EUMETCast	EUMETSAT's primary dissemination mechanism for the near real-time delivery of satellite data and products
FTP	File Transfer Protocol
GIS	Geographical Information System
IOC	Indian Ocean Commission
JRC	Joint Research Centre of the European Commission
MOI	Mauritius Oceanography Institute
REC	Regional Economic Communities
RCC	Regional Climate Centre
SADC-CSC	SADC Climate Services Centre
SPREP	Secretariat of Pacific Regional Environment Programme
TA	Technical Assistance
TAT	Technical Assistance Team
ACP	Africa Pacific Caribbean
ECCC	Environment and Climate Change Canada
NCEP	National Centers for Environmental Prediction
MF	Meteo France
UKMO	UK Met Office
JMA	Japan Meteorological Agency
ECMWF	European Centre for Medium-Range Weather Forecasts

1. INTRODUCTION

1.1 APPLICABLE AND REFERENCE DOCUMENTS

Id	Title	Date	Reference
AD-1			
AD-2			
AD-3			
AD-4			

Table 1: Applicable documents

Id	Title	Date	Reference
RD-1			
RD-2			
RD-3			

Table 2: Reference documents

1.2 SCOPE OF THE DOCUMENT

This document describes all EO products processed and visualized on the Climate Station, release 1.2.0. It is meant mainly for the thematic expert making use of the system.

2. DATASETS DISTRIBUTED ON CLIMATE STATION

The following tables contain the products treated on the Climate Station: firstly, the input products are listed, followed by the derived products computed by each processing chain. The reference period for the computation of LTA (Long Term Anomalies) is also indicated: normally, it corresponds to the whole datasets length, and is therefore longer then the temporal extension of time series locally available on the stations.

2.1 VEGETATION PRODUCT

The products indicated in grey correspond to previous versions, which are still available on the Climate Station but not automatically activated.

2.1.1 Input products

Product code	Version	Ingested sub-product	Description	Coverage	Available Period[1]	Ref
vgt-ndvi	vgt-pv-olci[2]	ndvi	NDVI from CGLS (1km)	Africa	1999- current	link
	olci-v2.0	ndv	NDVI from CGLS (300m)	Africa, Carribean	2020-current	link
modis-ndvi[3]	1.0	ndvi, zndvi, ndvid	NDVI from BOKU university (1km)	Africa	2001-current	link
modis-fapar[4]	1.0	fapar, 10dzscore	FAPAR products from DRO (0.01 degree)	Africa	2001-2022	link
wsi-hp	V1.0	pasture, crop	Water Satisfaction Index from JRC/MARS (1km)	Africa	2003-current	link
vgt-dmp	olci-v1.0	dmp	DMP from CGLS (300m)	Africa, Carribean	2021-current	link
vgt-fapar	olci-v1.0	fapar	FAPAR from CGLS (300m)	Africa, Carribean	2021-current	link
vgt-fcover	olci-v1.0	fcover	FCOVER from CGLS (300m)	Africa, Carribean	2021-current	link
vgt-lai	olci-v1.0	lai	LAI from CGLS (300m)	Africa, Carribean	2021-current	link
gdo-rdri	V2.3.2	rdri	Risk of Drought Impacts for Agriculture (1deg)	Global	2010-current	link

[1] Available period are the one from Climate station reference server.

[2] Since July 2020, the PROBAV platform ended its operations and was replaced by Sentinel-3 products in Copernicus Global Land Service (CGLS). The NDVI vgt-pv-olci version is the temporal composition of VEGETATION, PROBAV and S3-OLCI (see olci-v2.0 below) products into a single timeseries, in order to allow LT anomaly detection.

[3] These products are available only for visualization on eStation online version http://estation.jrc.ec.europa.eu/eStation2/

[4] The product is discontinued from version 1.1.2

2.2 INLAND WATER PRODUCTS

The following table describes the 'Inland water' products that are retrieved and ingested in the Climate Station. The reference period for the computation of LTA (Long Term Anomalies) is also indicated: normally, it corresponds to the whole datasets length, and is therefore longer then the temporal extension of timeseries locally available on the stations.

2.2.1 Input products

Product code	Version	Ingested sub-product	Description	Coverage	Available Period	Ref
wd-gee	V1.0	occurr	Inland water surface from Landsat – monthly occurrences (30m)	Africa[5]	2019-current	link
		avg	Long Term average occurrences (30m)	Africa	1985-2015(LTA)	
theia-wl[6]	1.0	n.a.	Water level over lakes and rivers (CSV Point data)			link

[5] The product is calculated on a global scale, but distributed only on Africa, divided by region.

[6] This product serves only for data download over the lakes and rivers selected in data source description

2.3 RAINFALL PRODUCTS

The following table describes the 'rainfall' monitoring products that are retrieved and ingested in the Climate Station. The reference period for the computation of LTA (Long Term Anomalies) is also indicated: normally, it corresponds to the whole datasets length, and is therefore longer then the temporal extension of timeseries locally available on the stations.

2.3.1 Input Products

Product code	Version	Ingested sub-product	Description	Coverage	Available Period	Ref
fewsnet-rfe	2.0	10d	Precipitation estimates over 10 days (8km)	Africa	2001-current	link
tamsat-rfe	3.0	10d	Precipitation estimates over 10 days (4km)	Africa	1983-current	link
	3.1	10d	Precipitation estimates over 10 days (4km)	Africa	1983-current	link
		1d	Precipitation estimates over 1 day (4km)	Africa	2000-current	link
chirps-dekad	2.0	10d	Precipitation estimates over 10 days (0.05deg)	Global	1981-current	link
arc2-rain	2.0	1d	Precipitation estimates from NASA-CPC(1983-Present) (0.1deg)	Africa	1983-current	link
rain-spi	V1.0	spi-1mon	Standard Precipitation Index over 1month from JRC-MARS (0.05deg)	Global	1989-current	link
		spi-3mon	Standard Precipitation Index over 3months from JRC-MARS (0.05deg)	Global	1989-current	link
era-hourly-tp	1.0	tp	CDS ERA5 Total Precipitation rate hourly (25km)	ACP	Refer CDS	link
cdas-monthly-prcp	1.0	prcp	CDAS Monthly Precipitation (2.5 Degree)	ACP	2019-current	link
gpcc-gpac	V.2022	fg-monthly	GPCC rainfall first guess monthly(1 degree)	Global	2013-current	link

2.4 RAINFALL FORECAST PRODUCTS

The following table describes the 'rainfall' forecast products that are retrieved and ingested in the Climate Station.

2.4.1 Input products

Product code	Version	Ingested sub-product	Description	Coverage	Available Period	Ref
eccc3-monthly-tp	1.0	tp	Seasonal forecast - Environment and Climate Change Canada system 3 monthly mean of Total Precipitation rate (1 degree)	ACP	Refer CDS	link
ukmo601-monthly-tp	1.0	tp	Seasonal forecast - UK met office system 601 monthly mean of Total Precipitation rate (1 degree)	ACP	Refer CDS	link
mf8-monthly-tp	1.0	tp	Seasonal forecast - Meteo France system 8 monthly mean of Total Precipitation rate (1 degree)	ACP	Refer CDS	link
s51-monthly-tp[7]	1.0	tp	Seasonal forecast - ECMWF system 51 monthly mean of Total Precipitation rate (1 degree)	ACP	Refer CDS	link
		tp-anom	Seasonal forecast - ECMWF system 51 monthly anomaly of Total Precipitation rate (1 degree)	ACP	Refer CDS	link
jma3-monthly-tp	1.0	tp	Seasonal forecast - JMA system 3 monthly mean of Total Precipitation rate (1 degree)	ACP	Refer CDS	link
ncep2-monthly-tp	1.0	tp	Seasonal forecast - NCEP system 2 monthly mean of Total Precipitation rate (1 degree)	ACP	Refer CDS	link
efi-spi	1.0	1month	Wet and Dry Spells 1month forecast (1 degree)	ACP	2023-current	link
		3month	Wet and Dry Spells 3 months forecast (1 degree)	ACP	2023-current	link
		6month	Wet and Dry Spells 6 months forecast (1 degree)	ACP	2023-current	link
s51-subdaily-tp	1.0	tp	Seasonal forecast - ECMWF system 51 subdaily 4 weeks forecast of Total Precipitation rate (1 degree)	ACP	Refer CDS	link

[7] The ECMWF system 5 version was replaced by S51 at the end of 2022. This apply to all S5 products.

2.5 FIRE PRODUCTS

The following table describes the 'Fire' products that are retrieved and ingested in the Climate Station. The reference period for the computation of LTA (Long Term Anomalies) is also indicated: normally, it corresponds to the whole datasets length, and is therefore longer then the temporal extension of timeseries locally available on the stations.

2.5.1 Input Products

Product code	Version	Ingested sub-product	Description	Coverage	Available Period	Ref
modis-firms	V6.1	1day	Daily Active Fires at 1 km resolution	Africa	2021-current	link

2.6 MISCELLANEOUS (MONITORING & FORECAST) PRODUCTS

The following table describes the 'Miscellaneous' monitoring and forecast products that are retrieved and ingested in the Climate Station. The reference period for the computation of LTA (Long Term Anomalies) is also indicated: normally, it corresponds to the whole datasets length, and is therefore longer then the temporal extension of time series locally available on the stations.

2.6.1 Input Products

Product code	Version	Ingested sub-product	Description	Coverage	Available Period	Ref
ascat-swi	V3.1	swi	Soil Water Index- Every day product (0.1 degree)	Global	2019-current	link
cpc-sm	1.0	sm	Soil Moisture – Monthly product (0.5 degree)	Global	2012-current	link
lsasaf-et	Undefined	et	Evapotranspiration 30mins product (1km)	MSG-disk	NA	link
lsasaf-lst	Undefined	lst	Land Surface temperature 15mins product (1km)	MSG-disk	NA	link
era-hourly-ssrd	1.0	ssrd	ERA5 hourly Surface solar radiation downwards (25km)	ACP	Refer CDS	link
era-hourly-10uwind	1.0	10uwind	ERA5 hourly 10m u component of wind (25km)	ACP	Refer CDS	link
era-hourly-10vwind	1.0	10vwind	ERA5 hourly 10m v component of wind (25km)	ACP	Refer CDS	link
s51-monthly-10mws	1.0	10mws	Seasonal forecast - ECMWF system 51 - monthly mean of 10m Wind Speed (1 degree)	ACP	Refer CDS	link
s51-monthly-mslp	1.0	mslp	Seasonal forecast - ECMWF system 51 - monthly mean of Mean sea level pressure (1 degree)	ACP	Refer CDS	link
s51-monthly-ssrd	1.0	ssrd	Seasonal forecast - ECMWF system 51 - monthly mean of Surface solar radiation downwards (1 degree)	ACP	Refer CDS	link
s2-l1c[8]	V1.0	N/A	Sentinel 2 L1C products from SentinelSat API	NA	NA	link
gdo-tws	V1.1.0	twsan	GRACE Total Water Storage Anomaly (1deg)	Global	2002-current	link
gdo-sma	V3.0.1	sma	Ensemble Soil Moisture Anomaly (0.1 degree)	Global	2023-current	link

[8] This product is introduced for Sentinel 1 & 2 data acquisition SentinelSat API. The detailed description how to use the acquisition for other Sentinel 2 sensors (L2A) in mentioned in Appendix. Also this product should be activated manually from Product Administrator and not available from Portfolio

2.7 MARINE PRODUCTS

The following table describes the 'Marine' monitoring and forecast products that are retrieved and ingested in the Climate Station. The reference period for the computation of LTA (Long Term Anomalies) is also indicated: normally, it corresponds to the whole datasets length, and is therefore longer then the temporal extension of time series locally available on the stations.

2.7.1 Input Products

Product code	Version	Ingested sub-product	Description	Coverage	Available Period	Ref
modis-sst	v2019.0	sst-day	Ingested daily Sea Surface temperature SST (4km)	Global	2003-current	link
modis-chla	v2022.0	chl-day	Ingested daily Chlorophyll a (4km)	Global	2003-current	link
modis-par	v2022.0	par-day	Ingested daily Photosynthetically Available Radiation - PAR (4km)	Global	2003-current	link
modis-kd490	v2022.0	kd490-day	Ingested daily Diffuse attenuation coefficient for downwelling irradiance at 490 nm - KD490 (4km)	Global	2003-current	link
pml-modis-chla	3.0	chl-3day	Ingested CHL (1km)	Region	2015-2023	link
pml-modis-sst	3.0	sst-3day	Ingested SST (1km)	Region	2015-2023	link
olci-wrr	V02.0	chl-oc4me	Chlorophyl-a computed with oc4me algo (1km)	Africa	NA	link
olci-wrr	V02.0	tsm-nn	Total Suspended Matter computed with nn algo (1km)	Africa	NA	link
slstr-sst	1.0	wst	Sea Surface Temperature (1km)	Africa	NA	link
era-hourly-sst	1.0	sst	ERA5 Sea Surface Temperature hourly (25km)	ACP	Refer CDS	link
era-monthly-sst	1.0	sst	ERA5 Sea Surface Temperature Monthly (25km)	ACP	Refer CDS	link
s51-monthly-sst	1.0	sst	Seasonal forecast 51 ensemble monthly mean of Sea Surface temperature (1 degree)	ACP	Refer CDS	link
		sst-anom	Seasonal forecast 51 monthly anomaly of Sea Surface temperature (1 degree)	ACP	Refer CDS	link

2.8 TEMPERATURE MONITORING PRODUCTS

The following table describes the 'Temperature' monitoring products that are retrieved and ingested in the Climate Station.

2.8.1 Input Products

Product code	Version	Ingested sub-product	Description	Coverage	Available Period	Ref
era-hourly-2mt	1.0	2mt	ERA5 2 meter temperature hourly (25km)	ACP	Refer CDS	link
		2mtmax	ERA5 Hourly maximum 2m temperature since previous post processing (25km)	ACP	Refer CDS	link
		2mtmin	ERA5 Hourly minimum 2m temperature since previous post processing (25km)	ACP	Refer CDS	link
era-monthly-2mt	1.0	2mt	ERA5 2 meter temperature monthly (25km)	ACP	Refer CDS	link
era-hourly-2mdw	1.0	2mdw	ERA5 2 meter dew point temperature hourly (25km)	ACP	Refer CDS	link
cdas-daily-temperature	1.0	tmax	Gridded daily temperature max (0.5 degree)	ACP	2020-current	link
		tmin	Gridded daily temperature min (0.5 degree)	ACP	2020-current	link

2.9 TEMPERATURE FORECAST PRODUCTS

The following table describes the 'Temperature' forecast products that are retrieved and ingested in the Climate Station.

2.9.1 Input products

Product code	Version	Ingested sub-product	Description	Coverage	Available Period	Ref
s51-monthly-2mt	1.0	2mt	Seasonal forecast - ECMWF system 51 - monthly mean of 2 meter temperature (1 degree)	ACP	Refer CDS	link
		2mtmax	Seasonal forecast - ECMWF system 51 - monthly mean of 2 meter temperature maximum in the last 24 hours (1 degree)	ACP	Refer CDS	link
		2mtmin	Seasonal forecast - ECMWF system 51 - monthly mean of 2 meter temperature minimum in the last 24 hours (1 degree)	ACP	Refer CDS	link
		2mt-anom	Seasonal forecast - ECMWF system 51 - monthly anomaly of 2 meter temperature (1 degree)	ACP	Refer CDS	link
eccc3-monthly-2mt	1.0	2mt	Seasonal forecast - Environment and Climate Change Canada(ECCC) system 3 - monthly mean of 2 meter temperature (1 degree)	ACP	Refer CDS	link
		2mtmax	Seasonal forecast - ECCC system 3 - monthly mean of 2 meter temperature maximum in the last 24 hours (1 degree)	ACP	Refer CDS	link
		2mtmin	Seasonal forecast - ECCC system 3 - monthly mean of 2 meter temperature minimum in the last 24 hours (1 degree)	ACP	Refer CDS	link
mf8-monthly-2mt	1.0	2mt	Seasonal forecast – Meteo France (MF) system 8 - monthly mean of 2 meter temperature (1 degree)	ACP	Refer CDS	link
		2mtmax	Seasonal forecast – Meteo France (MF) system 8 - monthly mean of 2 meter temperature maximum in the last 24 hours (1 degree)	ACP	Refer CDS	link
		2mtmin	Seasonal forecast – Meteo France (MF) system 8 - monthly mean of 2 meter temperature minimum in the last 24 hours (1 degree)	ACP	Refer CDS	link
ukmo601-monthly-2mt	1.0	2mt	Seasonal forecast – UK Met Office (UKMO) system 601 - monthly mean of 2 meter temperature (1 degree)	ACP	Refer CDS	link
		2mtmax	Seasonal forecast – UK Met Office (UKMO) system 601 - monthly mean of 2 meter temperature maximum in the last 24 hours (1 degree)	ACP	Refer CDS	link

		2mtmin	Seasonal forecast – UK Met Office (UKMO) system 601 - monthly mean of 2 meter temperature minimum in the last 24 hours (1 degree)	ACP	Refer CDS	link
s51-monthly-2mdw	1.0	2mdw	Seasonal forecast ECMWF system 51 - monthly mean of 2 meter dew point temperature (1 degree)	ACP	Refer CDS	link
s51-subdaily-2mdw	1.0	2mdw	Seasonal forecast ECMWF system 51 - subdaily 4 weeks forecast of 2m dew point temperature (1 degree)	ACP	Refer CDS	link
s51-subdaily-2mt	1.0	2mt	Seasonal forecast ECMWF system 51 - subdaily 4 weeks forecast of 2m temperature (1 degree)	ACP	Refer CDS	link
		2mtmax	Seasonal forecast ECMWF system 51 - subdaily 4 weeks forecast of 2m temperature maximum in the last 24 hours (1 degree)	ACP	Refer CDS	link
		2mtmin	Seasonal forecast ECMWF system 51 - subdaily 4 weeks forecast of 2m temperature minimum in the last 24 hours (1 degree)	ACP	Refer CDS	link
ncep2-monthly-2mt	1.0	2mt	Seasonal forecast – NCEP system 2 - monthly mean of 2 meter temperature (1 degree)	ACP	Refer CDS	link
		2mtmax	Seasonal forecast – NCEP system 2 - monthly mean of 2 meter temperature maximum in the last 24 hours (1 degree)	ACP	Refer CDS	link
		2mtmin	Seasonal forecast – NCEP system 2 - monthly mean of 2 meter temperature minimum in the last 24 hours (1 degree)	ACP	Refer CDS	link
jma3-monthly-2mt	1.0	2mt	Seasonal forecast – JMA system 3 - monthly mean of 2 meter temperature (1 degree)	ACP	Refer CDS	link
		2mtmax	Seasonal forecast – JMA system 3 - monthly mean of 2 meter temperature maximum in the last 24 hours (1 degree)	ACP	Refer CDS	link
		2mtmin	Seasonal forecast – JMA system 3 - monthly mean of 2 meter temperature minimum in the last 24 hours (1 degree)	ACP	Refer CDS	link

2.10 ATMOSPHERE PRODUCTS

The following table describes the 'Atmosphere' observation and forecast products that are retrieved and ingested in the Climate Station.

2.10.1 Input products

Product code	Version	Ingested sub-product	Description	Coverage	Available Period	Ref
cams-bcaod550	1.0	subdaily	CAMS subdaily forecast of Black Carbon Aerosol Optical Depth at 550nm	ACP	Refer ADS	link
		daily[9]	CAMS daily observation of Black Carbon Aerosol Optical Depth at 550nm	ACP	Refer ADS	link
		monthly[9]	CAMS monthly Black Carbon Aerosol Optical Depth at 550nm	ACP	Refer ADS	link
cams-duaod550	1.0	subdaily	CAMS subdaily forecast of Dust aerosol optical depth at 550 nm	ACP	Refer ADS	link
		daily[9]	CAMS daily observation of Dust aerosol optical depth at 550 nm	ACP	Refer ADS	link
		monthly[9]	CAMS monthly Dust aerosol optical depth at 550 nm	ACP	Refer ADS	link
cams-omaod550	1.0	subdaily	CAMS subdaily forecast of Organic matter aerosol optical depth at 550 nm	ACP	Refer ADS	link
		daily[9]	CAMS daily observation of Organic matter aerosol optical depth at 550 nm	ACP	Refer ADS	link
		monthly[9]	CAMS monthly Organic matter aerosol optical depth at 550 nm	ACP	Refer ADS	link
cams-pm10	1.0	subdaily	CAMS subdaily forecast of Particulate Matter 10um	ACP	Refer ADS	link
		daily[9]	CAMS daily observation of Particulate Matter 10um	ACP	Refer ADS	link
		monthly[9]	CAMS monthly Particulate Matter 10um	ACP	Refer ADS	link
cams-pm2p5	1.0	subdaily	CAMS subdaily forecast of Particulate Matter 2.5um	ACP	Refer ADS	link
		daily[9]	CAMS daily observation of Particulate Matter 2.5um	ACP	Refer ADS	link
		monthly[9]	CAMS monthly Particulate Matter 2.5um	ACP	Refer ADS	link
cams-aod550	1.0	subdaily	CAMS subdaily forecast of Total aerosol optical depth at 550 nm	ACP	Refer ADS	link
		daily[9]	CAMS daily observation of Total aerosol optical depth at 550 nm	ACP	Refer ADS	link
		monthly[9]	CAMS monthly Total aerosol optical depth at 550 nm	ACP	Refer ADS	link

[9] These products are updated twice a year with 4-6month delay.

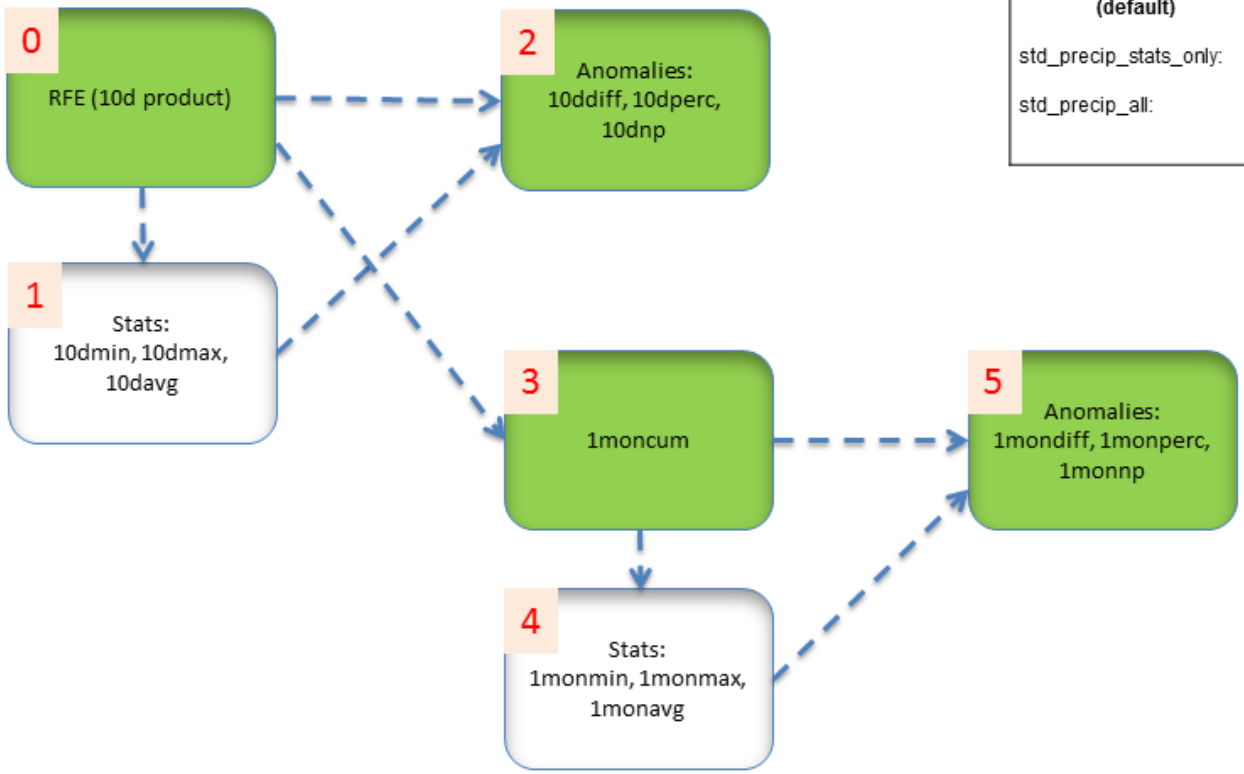
3. DESCRIPTION OF THE 'STANDARD' PROCESSING CHAINS

The current paragraph presents in a graphic manner how the 'derived' products are computed in the 'standard' processing chains, available in release 2.X.X, according to the following conventions:

- The 'entry' point of the processing chain is displayed at the top-left corner, and indicated with the number 0. It is normally an ingested product.
- Every group of derived products is indicated with an increasing number, according to the order of the computation.
- Some processing chains can be called with an option, which activates/deactivates some steps. When he steps are de-activated, the corresponding outputs are not updated (e.g. long-term statistics).
- The options are indicated in a table, together with the products the chain is applied to (non-exhaustive list). The default option is also indicated, for which the active computational steps are indicated in green in the diagram.

Processing chain: **std_precip**

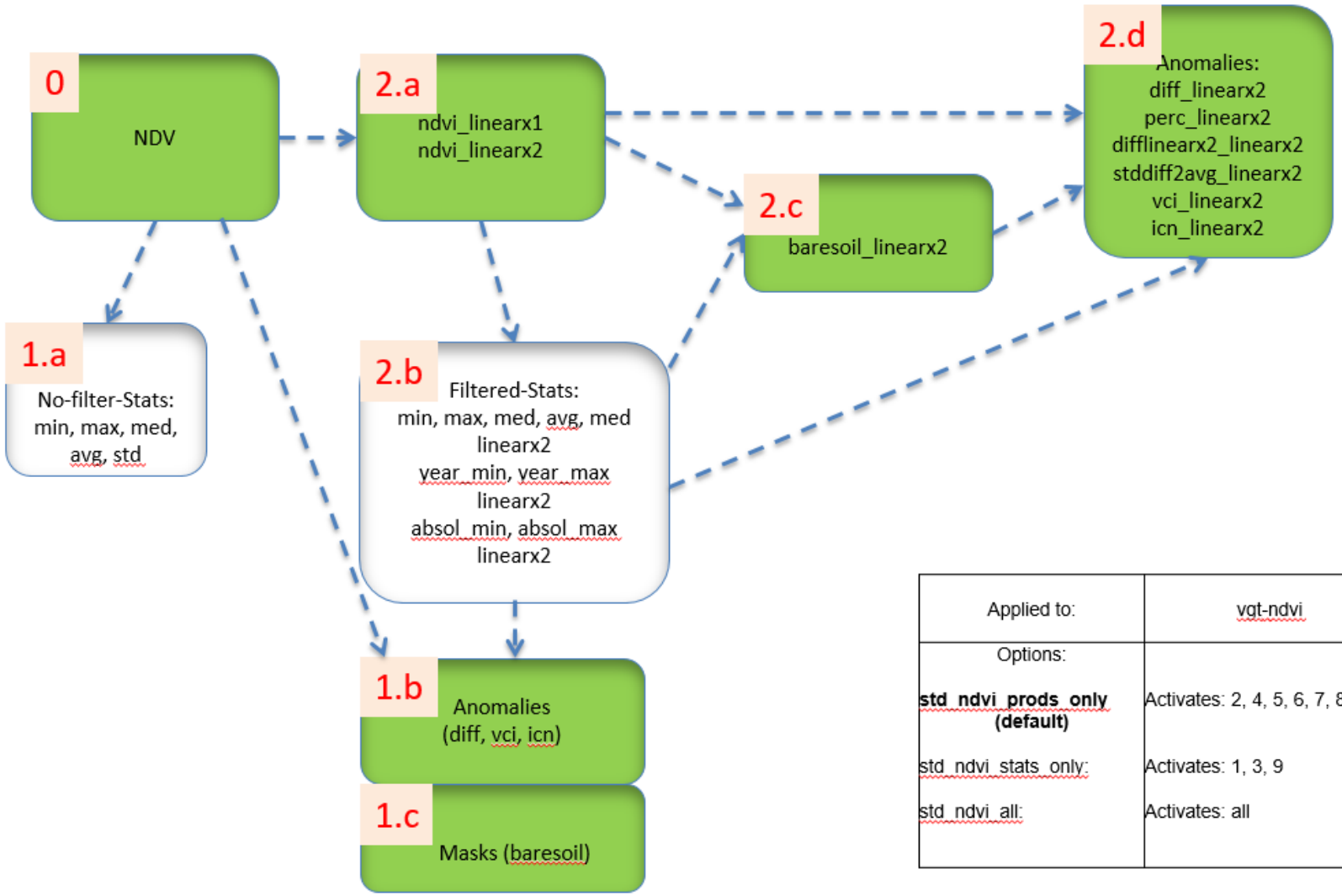
Applied to:	FEWSNET TAMSAT CHIRPS
Options:	
std_precip_prods_only (default)	**Activates: 2, 3 and 5**
std_precip_stats_only:	Activates: 1 and 4
std_precip_all:	Activates: all



Processing chain: Standard Precipitation processing chain (**std_precip**)
Applied to: fewsnet-rfe, tamsat-rfe, chirps-dekad

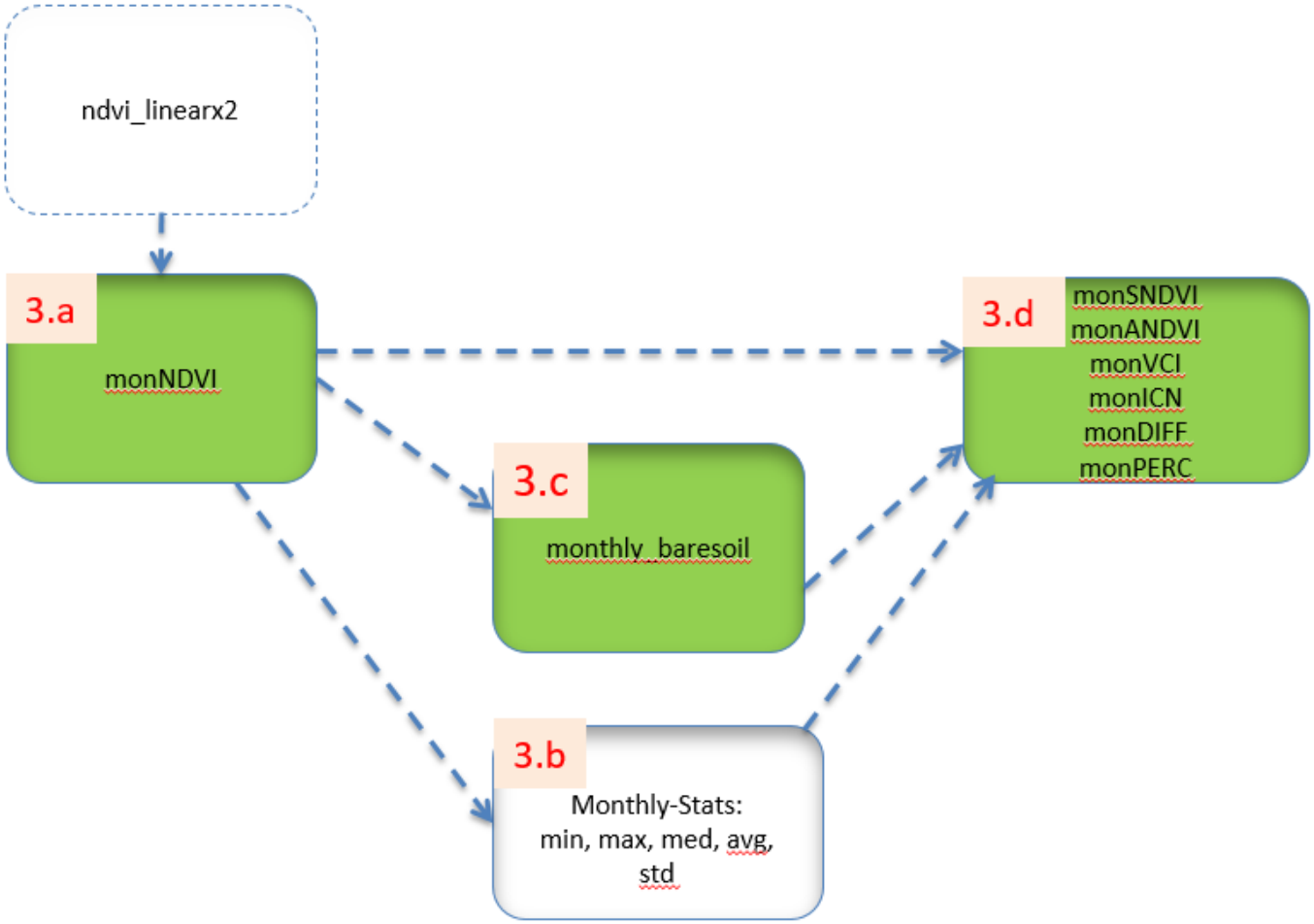
10davg	Statistic: multi-years average for each dekad
10dmin	Statistic: multi-years minimum for each dekad
10dmax	Statistic: multi-years maximum for each dekad
10ddiff	Anomaly: ABSOLUTE DIFFERENCE (10d – 10davg)
10dperc	Anomaly: RELATIVE DIFFERENCE % ((10d – 10davg)/10davg) (Computed only when LTA > 7mm)
10dnp	Anomaly: Normalized Precipitation (10d- 10dmin)/(10dmax-10dmin) (Computed only when LTA > 7mm)
10dratio	Anomaly: Precipitation Ratio 100*(10d/10davg)
1moncum	Cumulated 10day RFE over each month
1monavg	Statistic: multi-years average for each month
1monmin	Statistic: multi-years minimum for each month
1monmax	Statistic: multi-years maximum for each month
1mondif	Anomaly: ABSOLUTE DIFFERENCE (1moncum-1monavg)
1monperc	Anomaly: RELATIVE DIFFERENCE (1moncum-1monavg)/1monavg (Computed only when LTA > 20mm)
1monnp	Anomaly: Normalized Precipitation (1moncum- 1monmin)/(1monmax-1monmin) (Computed only when LTA > 20mm)

Processing chain: **std_ndvi**



Applied to:	vgt-ndvi
Options:	
std_ndvi_prods_only (default)	Activates: 2, 4, 5, 6, 7, 8, 10
std_ndvi_stats_only:	Activates: 1, 3, 9
std_ndvi_all:	Activates: all

Processing chain: **std_ndvi** (continued)



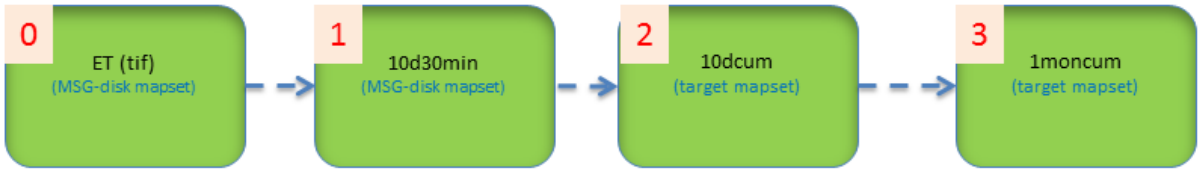
Derived products

Processing chain: Standard Precipitation processing chain for VGT NDVI (**std_vgt_ndvi**)

Applied to: vgt-ndvi

ndvi-linearx2	Filtered NDVI (linear filtering applied twice)
10davg-linearx2	Statistic: AVG of ndvi-linearx2
10dmin-linearx2	Statistic: MIN of ndvi-linearx2
10dmax-linearx2	Statistic: MAX of ndvi-linearx2
10dmed-linearx2	Statistic: MED of ndvi-linearx2
10dstd-linearx2	Statistic: STD of ndvi-linearx2
10ddiff-linearx2	Anomaly: DIF of ndvi-linearx2
10dsndvi-linearx2	Anomaly: SNDVI of ndvi-linearx2 (aka z-score)
10dperc-linearx2	Anomaly: PERC difference of ndvi-linearx2 (100*(curr-LTA)/LTA)
linearx2diff-linearx2	Anomaly: Absolute Difference (ndvi-linearx2 -10davg-linearx2)
vci-linearx2	Anomaly: VCI (linearx2 vs. linearx2 statistics)
icn-linearx2	Anomaly: ICN (linearx2 vs. linearx2 statistics)
ratio-linearx2	Anomaly: Ratio (100 * ndvi-linearx2/10davg-linearx2)
monndvi	Indicator: monthly NDVI (from ndvi-linearx2)
1monavg	Statistic: monthly multi-year average NDVI
1monmin	Statistic: monthly multi-year min NDVI
1monmax	Statistic: monthly multi-year max NDVI
1monicn	Statistic: monthly ICN NDVI
1monvci	Statistic: monthly VCI NDVI
1monstd	Statistic: monthly std NDVI
1mondiff	Anomaly: monthly diff NDVI
1monperc	Anomaly: monthly perc NDVI
1monsndvi	Anomaly: monthly SNDVI (aka z-score)
monthly-ratio	Anomaly: monthly ratio

Processing chain: **std_lsasaf_et**



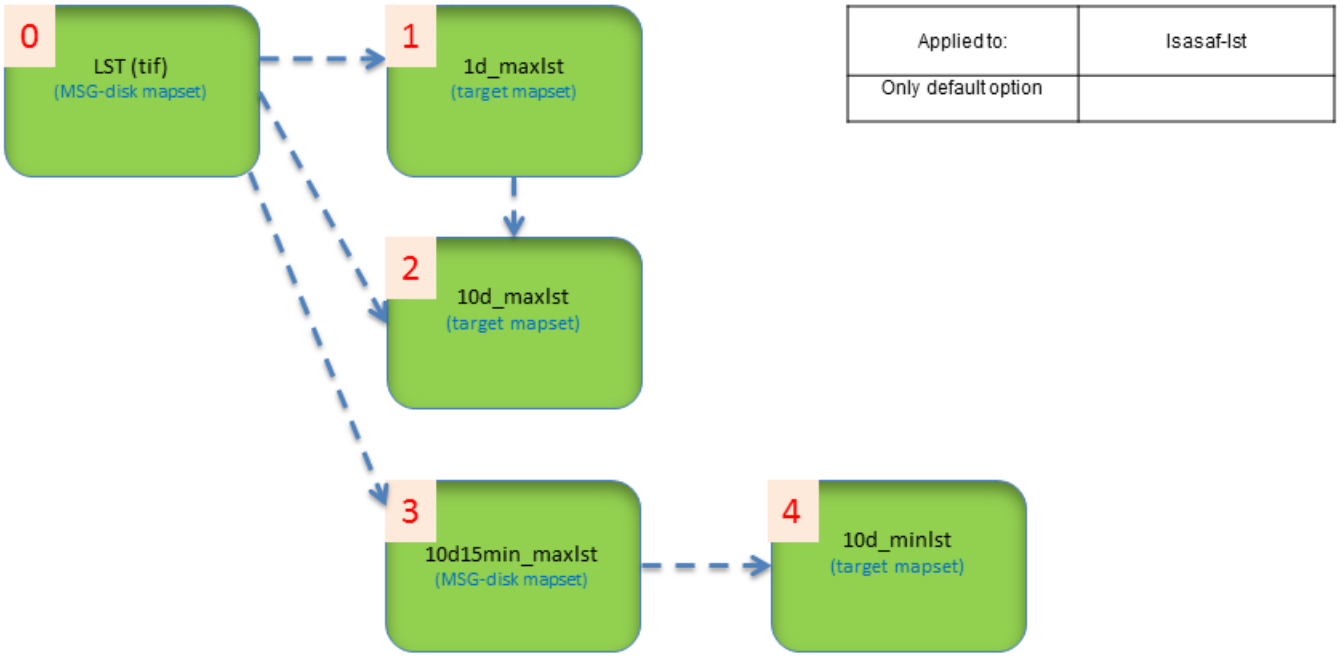
Applied to:	lsasaf-et
Only default option	
Notes:	10d and 1mon stats and anomalies to be added

Processing chain: Standard Processing chain for LSASAF ET related products (**std_lsasaf_et**)

Applied to: lsasaf-et

10d30min[2]	Statistics (30min average over 10 days)	MSG-disk
10dcum	Indicator: ET cumulated over 10 days	Africa
1moncum	Indicator: ET cumulated over 1 month	Africa

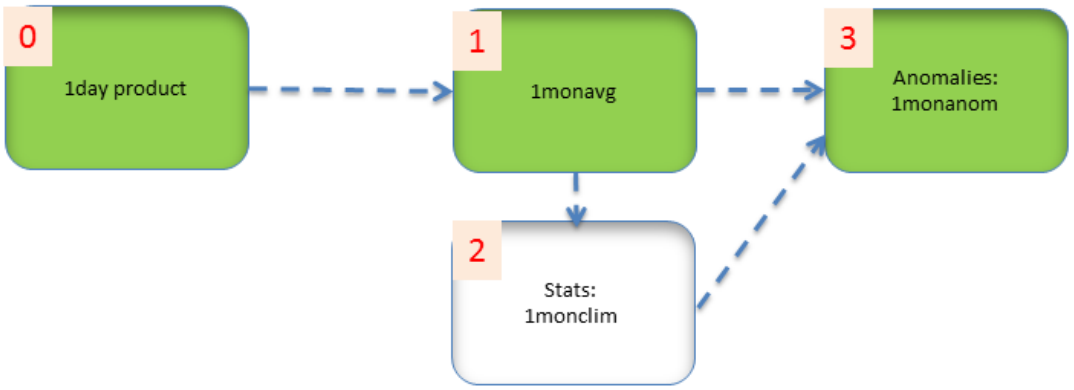
Processing chain: **std_lsasaf_lst**



Processing chain: Standard Processing chain for LSASAF LST related products (std_lsasaf_lst)

Applied to: lsasaf-lst

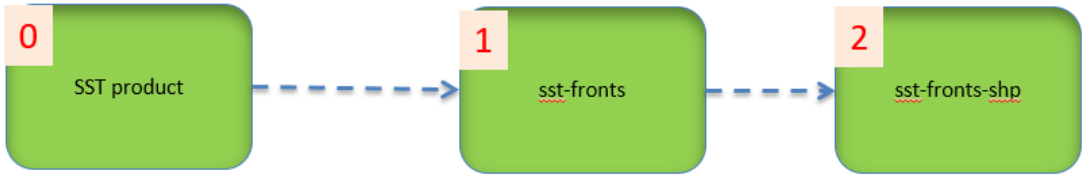
10d15min[2]	Statistics (15min max over 10 days)	MSG-disk
1dmax	Indicator: LST maximum over 1 day	Africa
10dmax	Indicator: LST maximum over 10 days	Africa
10dmin	Indicator: LST minimum over 10 days	Africa



Applied to:	modis-chla modis-sst modis-kd490 modis-par
Only default option	
Notes:	The computation of 1monclim is done once for all (no updated)

Processing chain: Standard Processing chain for MODIS monthly average computation (**std_modis_derived**)
Applied to: modis-chla, modis-sst, modis-par, modis-kd490

8daysavg	8 days Average
monavg	Monthly average
monclim	Monthly Climatology
monanom	Monthly Anomaly (monthly - climatology)



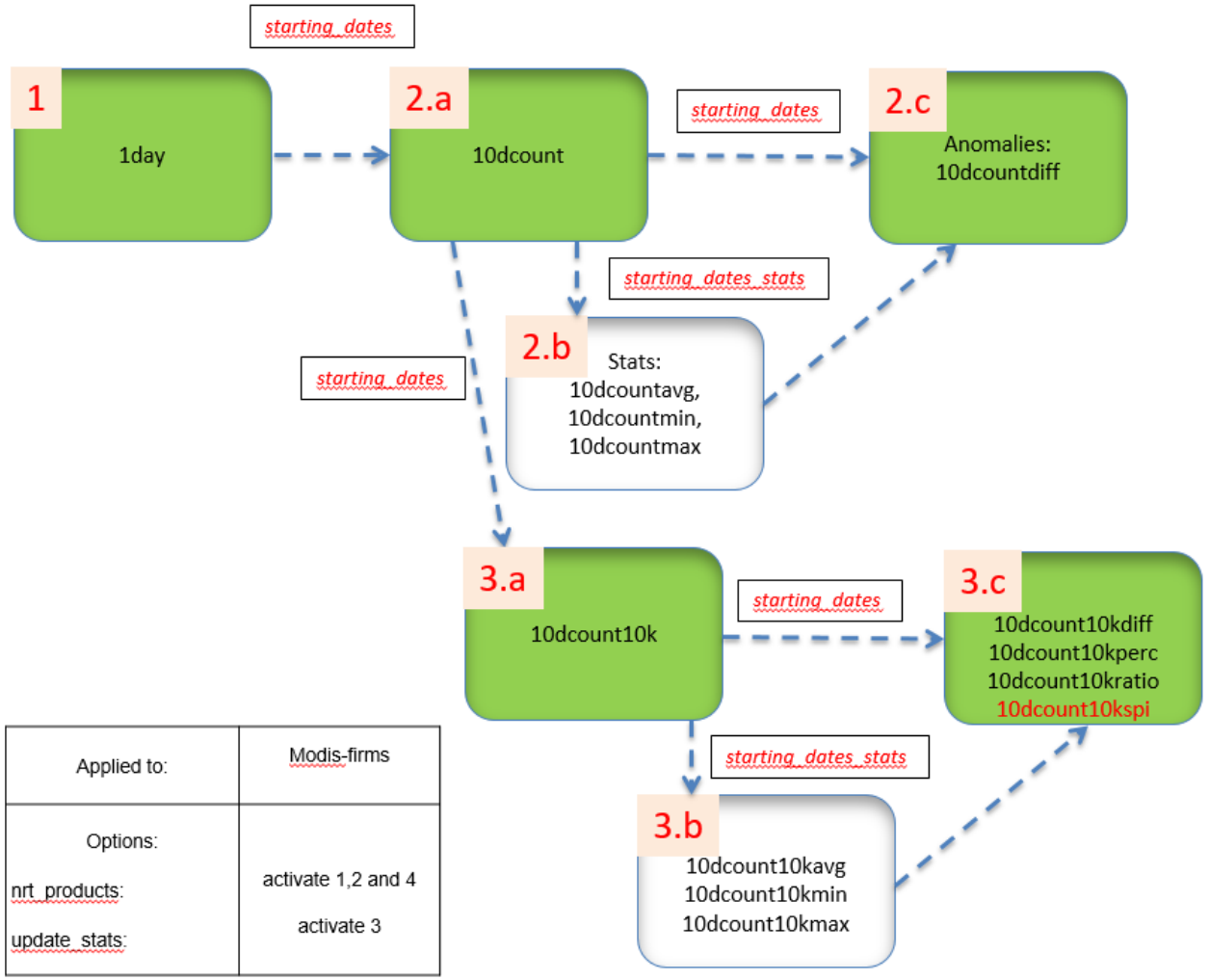
Applied to:	modis-sst pml-modis-sst slstr-sst
Only default option	

Processing chain: Proc library based processing chain for front's computation (**proc_fronts**)
Applied to: pml-modis-sst, slstr-sst

sst-fronts	Fronts of Sea Surface Temperature
sst-fronts-shp[10]	Fronts of SST in shapefile format

[10] On top of the GeoTiff file (sst-fronts) this product is created for usage in QGIS or other applications (it is not visualized by Climate Station viewer).

Processing chain: std_modis_firms

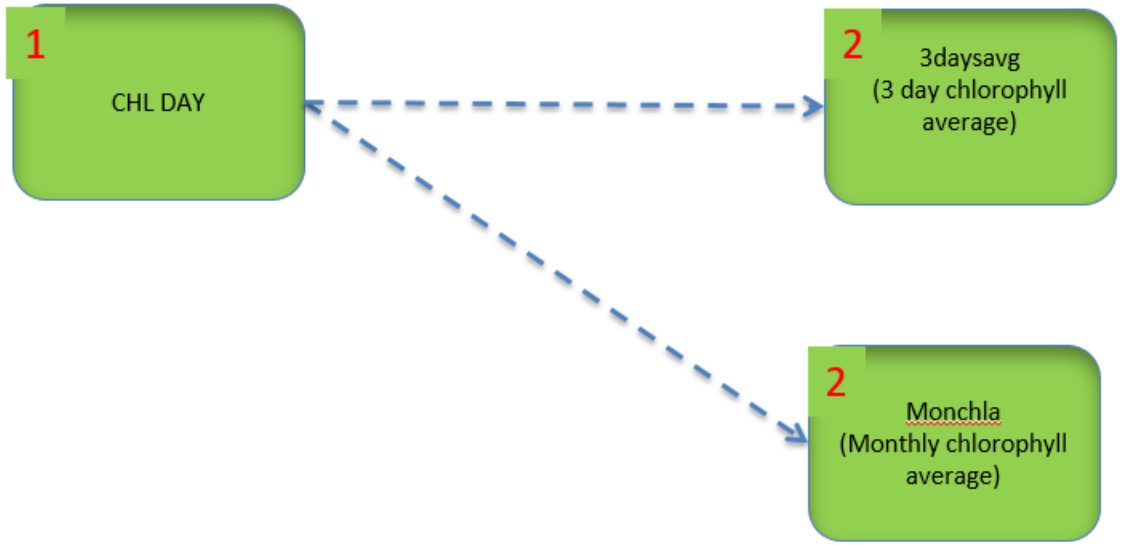


Applied to:	Modis-firms
Options: nrt_products: update_stats:	 activate 1,2 and 4 activate 3

Processing chain: Processing chain of standard MODIS FIRMS products (**std_modis_firms**)
Applied to: modis-firms

10dcount	Number of fires over 10 day period
10dcountavg	Multi-years average number of 10dcount
10dcountmin	Multi-years minimum number of 10dcount
10dcountmax	Multi-years maximum number of 10dcount
10dcountdiff	Difference between 10dcount and 10dcountavg
10dcount10K	Number of fires over 10 day period over 10 Km grids
10dcount10Kavg	Multi-years average number of 10dcount over 10 Km grids
10dcount10Kmin	Multi-years minimum number of 10dcount over 10 Km grids
10dcount10Kmax	Multi-years maximum number of 10dcount over 10 Km grids
10dcount10Kdiff	Difference between 10dcount and 10dcountavg over 10 Km grids
10dcount10Kratio	Ratio between 10dcount and 10dcountavg over 10 Km grids

Processing chain: std_olci_wrr



Processing chain: Standard Processing chain for 3day average, monthly average products computation (**std_olci_wrr**)
Applied to: slstr-sst, olci-wrr

3daysavg	3day average Product
monavg	Monthly average product

Processing chain: std_gradient

Processing chain: std_monavg

Processing chain: std_3dayavg

Processing chain: Proc library based Processing chain for gradient computation (**proc_gradient**)
Applied to: modis-chla, slstr-sst, olci-wrr

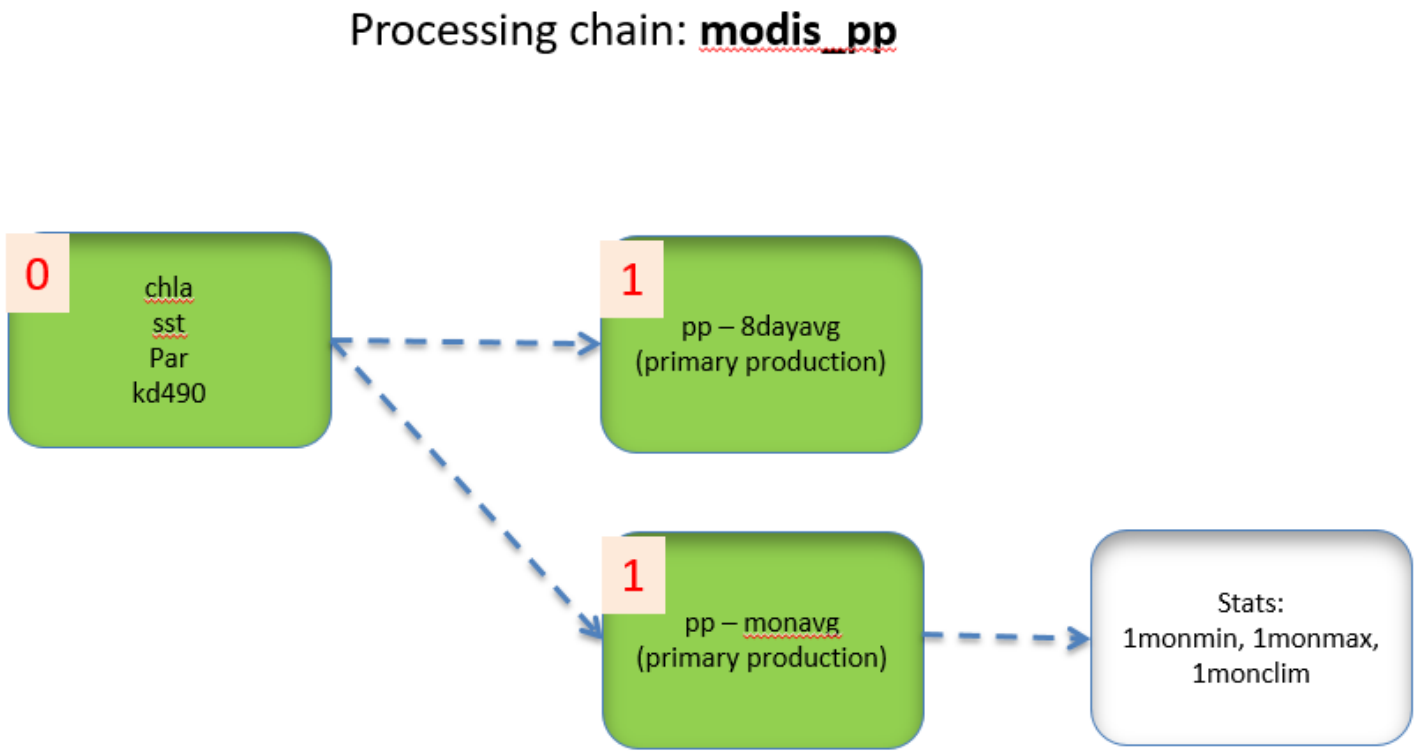
gradient	Horizontal Gradient for chlorophyll and sea surface temperature.

Processing chain: Standard Processing chain for monthly average computation from daily products (**std_monavg**)
Applied to: slstr-sst, olci-wrr

monavg	Monthly averaged for sst or chla

Processing chain: Standard Processing chain for monthly average computation from daily products (**std_3dayavg**)
Applied to: slstr-sst

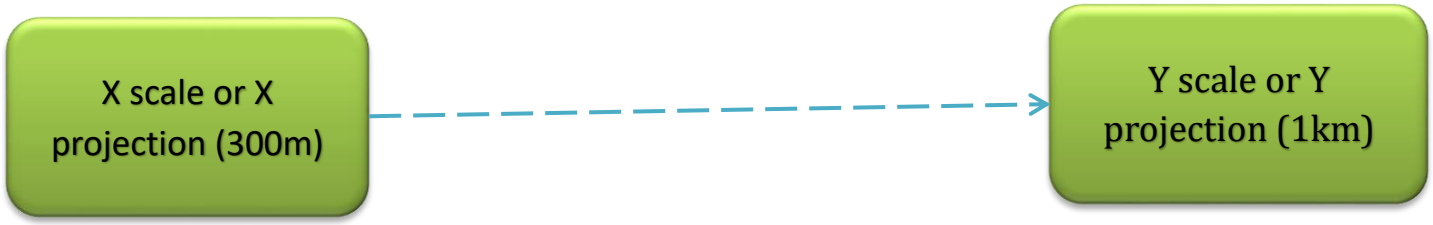
3dayavg	Three day averaged for sst or chla



Processing chain: Non Standard Processing chain for Primary production computation (**modis_pp**)
Applied to: modis-chla, modis-sst, modis-par, modis-kd490 are the 4 inputs for computing PP

8daysavg	Average Primary production over 8 days
monavg	Monthly average primary production

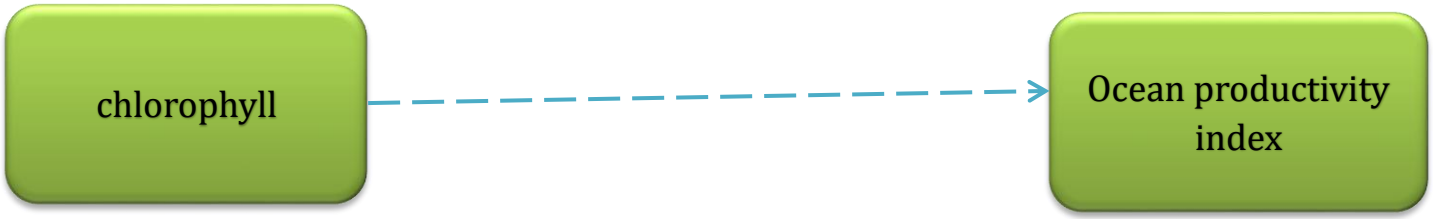
Processing chain: std_reproject



Processing chain: Standard Processing chain to convert to one resolution, one projection from existing resolution and projection (**std_reproject**)
Applied to: vgt-ndvi

ndvi	Reprojected data from 300m to 1km

Processing chain: std_opfish



Processing chain: Standard Processing chain to generate Ocean productivity index from chorophyll (**std_opfish**)
Applied to: modis-chla

opfish	Ocean productivity index from Modis chlorophyll data