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eStation 2.0

Product Report

Version 1.0

November 2015

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Abstract / Résumé
This document lists all the products available on eStation 2.0

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ACRONYMS and DEFINITIONS

AMESD	African Monitoring of Environment for Sustainable Development
ACMAD	African Centre of Meteorological Applications for Development
AGRHYMET	Centre Régional de Formation et d'Application en Agrométéorologie et Hydrologie Opérationnelle
AU	African Union
BDMS	Botswana Department of Meteorological Services
CICOS	Commission Internationale du Bassin Congo-Oubagui-Sangha
CWG	The MESA Continentalisation Working Group
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
MESA	Monitoring for Environment and Security in Africa
MOI	Mauritius Oceanography Institute
REC	Regional Economic Communities
RIC	Regional Implementation Centre
TA	Technical Assistance
TAT	Technical Assistance Team
THEMA	Regional and Continental Thematic Actions

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	eStation 2.0 User Manual	October 2015	MESA/DOC/eStation/UserManual
RD-2	eStation 2.0 Administration Manual	October 2015	MESA/DOC/eStation/AdminManual
RD-3			

Table 2: Reference documents

2. INTRODUCTION

2.1 SCOPE OF THE DOCUMENT

This document describes all EO products processed and visualized on the eStation 2.0, release 2.0.1, which is delivered as part of the MESA Station. It is meant mainly for the thematic expert making use of the system.

2. DATASETS DISTRIBUTED ON ESTATION 2.0

The datasets listed in Table 3 to Table 6 are those found after the installation and ingestion of the historical archives. They are grouped by categories, as in the eStation GUI, and for each of them we indicate the name of product, subproduct, the type of subproduct (either Ingest or Derived), the geographic extension available and the temporal extension of the timeseries. The version of the product and the reference period for the computation of LTA (Long Term Anomalies) is also indicated.

Rainfall					
FEWSNET-RFE	10d	Ingest	Precipitation estimates over 10 days	Africa	since 1/1/2011
version: 2.0	10davg	Derived	Statistic: AVG (average)	Africa	36 dekads
LTA: 2001-2014	10dmin	Derived	Statistic: MIN (minimum	Africa	36 dekads
	10dmax	Derived	Statistic: MAX (maximum)	Africa	36 dekads
	10ddiff	Derived	Anomaly: ABSOLUTE DIFFERENCE (CURRENT- AVERAGE)	Africa	since 1/1/2011
	10dperc	Derived	Anomaly: RELATIVE DIFFERENCE % ([CURRENT-AVERAGE]/AVERAGE)	Africa	since 1/1/2011
	10dnp	Derived	Anomaly: NP (Current - MINIMUM)/(MAXIMUM-Minimum)	Africa	since 1/1/2011
	1moncum	Derived	Cumul RFE	Africa	since 1/1/2011
	1monavg	Derived	Statistic: AVG	Africa	12 month
	1monmin	Derived	Statistic: MIN	Africa	12 month
	1monmax	Derived	Statistic: MAX	Africa	12 month
	1mondif	Derived	Anomaly: ABSOLUTE DIFFERENCE	Africa	since 1/1/2011
	1monperc	Derived	Anomaly: RELATIVE DIFFERENCE %	Africa	since 1/1/2011
	1monnp	Derived	Anomaly: NP (Current - MINIMUM)/(MAXIMUM-Minimum)	Africa	since 1/1/2011
TAMSAT-RFE	10d	Ingest	Precipitation estimates over 10 days	Africa	since 1/1/2011
version: 2.0	10davg	Derived	Statistic: AVG (average)	Africa	36 dekads
LTA: 1983-2014	10dmin	Derived	Statistic: MIN (minimum	Africa	36 dekads
	10dmax	Derived	Statistic: MAX (maximum)	Africa	36 dekads
	10ddiff	Derived	Anomaly: ABSOLUTE DIFFERENCE (CURRENT- AVERAGE)	Africa	since 1/1/2011
	10dperc	Derived	Anomaly: RELATIVE DIFFERENCE % ([CURRENT-AVERAGE]/AVERAGE)	Africa	since 1/1/2011
	10dnp	Derived	Anomaly: NP (Current - MINIMUM)/(MAXIMUM-Minimum)	Africa	since 1/1/2011

	1moncum	Derived	Cumul RFE	Africa	since 1/1/2011
	1monavg	Derived	Statistic: AVG	Africa	12 month
	1monmin	Derived	Statistic: MIN	Africa	12 month
	1monmax	Derived	Statistic: MAX	Africa	12 month
	1mondif	Derived	Anomaly: ABSOLUTE DIFFERENCE	Africa	since 1/1/2011
	1monperc	Derived	Anomaly: RELATIVE DIFFERENCE %	Africa	since 1/1/2011
	1monnp	Derived	Anomaly: NP (Current - MINIMUM)/(MAXIMUM-Minimum)	Africa	since 1/1/2011
CHIRPHS-DEKAD	10d	Ingest	Precipitation estimates over 10 days	Africa	since 1/1/2011
version: 2.0	10davg	Derived	Statistic: AVG (average)	Africa	36 dekads
LTA: 1981-2014	10dmin	Derived	Statistic: MIN (minimum	Africa	36 dekads
	10dmax	Derived	Statistic: MAX (maximum)	Africa	36 dekads
	10ddiff	Derived	Anomaly: ABSOLUTE DIFFERENCE (CURRENT- AVERAGE)	Africa	since 1/1/2011
	10dperc	Derived	Anomaly: RELATIVE DIFFERENCE % ([CURRENT-AVERAGE]/AVERAGE)	Africa	since 1/1/2011
	10dnp	Derived	Anomaly: NP (Current - MINIMUM)/(MAXIMUM-Minimum)	Africa	since 1/1/2011
	1moncum	Derived	Cumul RFE	Africa	since 1/1/2011
	1monavg	Derived	Statistic: AVG	Africa	12 month
	1monmin	Derived	Statistic: MIN	Africa	12 month
	1monmax	Derived	Statistic: MAX	Africa	12 month
	1mondif	Derived	Anomaly: ABSOLUTE DIFFERENCE	Africa	since 1/1/2011
	1monperc	Derived	Anomaly: RELATIVE DIFFERENCE %	Africa	since 1/1/2011
	1monnp	Derived	Anomaly: NP (Current - MINIMUM)/(MAXIMUM-Minimum)	Africa	since 1/1/2011

Table 3: Rainfall Datasets

Vegetation					
VGT-NDVI	ndv	Ingest	Ingested NDVI	Africa	since 1/1/2011
version: sv2-pv2.1	ndvi-linearx1	Derived	Filtered NDVI	Africa	since 1/1/2011
LTA: 1999-2014	ndvi-linearx2	Derived	Filtered NDVI (twice)	Africa	since 1/1/2011
	10davg-linearx2	Derived	Statistic: AVG	Africa	36 dekads
	10dmin-linearx2	Derived	Statistic: MIN	Africa	36 dekads
	10dmax-linearx2	Derived	Statistic: MAX	Africa	36 dekads

	10dmed-linearx2	Derived	Statistic: MED	Africa	36 dekads
	year-min-linearx2	Derived	Statistic: MIN over every year	Africa	since 2011
	year-max-linearx2	Derived	Statistic: MAX over every year	Africa	since 2011
	absol-min-linearx2	Derived	Statistic: Overall MIN	Africa	1 file
	absol-max-linearx2	Derived	Statistic: Overall MAX	Africa	1 file
	baresoil-linearx2	Derived	Indicator: baresoil	Africa	since 1/1/2011
	diff-lineax2	Derived	Anomaly: ABS. DIFF. (ndv vs. linearx2 stats)	Africa	since 1/1/2011
	vci	Derived	Anomaly: VCI (ndv vs. linearx2 stats)	Africa	since 1/1/2011
	icn	Derived	Anomaly: ICN (ndv vs. linearx2 stats)	Africa	since 1/1/2011
	linearx2diff-linearx2	Derived	Anomaly: ABS. DIFF. (linearx2 vs. linearx2 stats)	Africa	since 1/1/2011
	vci_linearx2	Derived	Anomaly: VCI (linearx2 vs. linearx2 stats)	Africa	since 1/1/2011
	icn_linearx2	Derived	Anomaly: ICN (linearx2 vs. linearx2 stats)	Africa	since 1/1/2011
	monndvi	Derived	Indicator: cumulated monthly	Africa	since 1/1/2011
	1monavg	Derived	Statistic: AVG	Africa	12 months
	1monmin	Derived	Statistic: MIN	Africa	12 months
	1monmax	Derived	Statistic: MAX	Africa	12 months

VGT-FAPAR	fapar	Ingest	Ingested FAPAR	Africa	since 11/5/2015
version: V1.4					
LTA: -					

VGT-LAI	lai	Ingest	Ingested LAI	Africa	since 21/5/2014
version: V1.4					
LTA: -					

VGT-FCOVER	fcover	Ingest	Ingested FCOVER	Africa	since 21/5/2014
version: V1.4					
LTA: -					

VGT-dmp	dmp	Ingest	Ingested DMP	Africa	since 1/6/2014
version: V1.0					
LTA: -					

Table 4: Vegetation Datasets

Miscellaneous					
LSASAF-ET	et	Ingest	Ingested ET (30 min)	Africa	since 1/5/2015
version: undefined	10d30min	Derived	Statistics (30min average over 10 days)	Africa	
LTA: -	10dcum	Derived	Indicator: ET cumulated over 10 days	Africa	
	1moncum	Derived	Indicator: ET cumulated over 1 month	Africa	
					-
LSASAF-LST	lst	Ingest	Ingested LST (15 min)	Africa	since 1/5/2015
version: undefined	10d15min	Derived	Statistics (15min max over 10 days)	Africa	
LTA: -	1dmax	Derived	Indicator: LST maximum over 1 day	Africa	
	10dmax	Derived	Indicator: LST maximum over 10 days	Africa	
	10dmin	Derived	Indicator: LST minimum over 10 days		-

MODIS-FIRMS	1day	Ingest	Ingested Active Fires	Africa	since 1/1/2015
version: undefined					
LTA: -					

Table 5: Miscellaneous Datasets

Marine					
MODIS-SST	sst-day	Ingest	Ingested SST	Africa	since 1/1/2013
version: v2013.1	sst-fronts	Derived	Fronts of SST	Africa	-

LTA: -					
MODIS-CHLA	chl-day	Ingest	Ingested CHL	Africa	since 1/1/2013
version: v2013.1				Africa	
LTA: -					
PML-MODIS-SST	sst-day	Ingest	Ingested SST	Region	since 1/5/2015
version: 3.0	sst-fronts	Derived	Fronts of SST	Region	-
LTA: -					
PML-MODIS-CHLA	chl-day	Ingest	Ingested CHL	Region	since 1/5/2015
version: 3.0				Region	
LTA: -					

Table 6: Marine Datasets

2.1.1 Products activated for each THEMA

The following Table 7 indicates which products are activated for each THEMA (the name of the RIC is displayed) and what is the geographic region adopted for each of them. The selection of the products/subproducts is performed by the eStation while selecting the 'THEMA' under the 'System' Tab.

	Resolution	ACMAD	AGRHYMET	BDMS	CICOS	ICPAC	MOI	UOG
RAINFALL								
FEWSNET RFE	8km	Africa	Africa	Africa	Africa	Africa	-	-
TAMSAT RFE	5km	Africa	Africa	Africa	Africa	Africa	-	-
CHIRPS2.0 RFE	8km	Africa	Africa	Africa	Africa	Africa	-	-
TEMPERATURE								
Landsaf LST - MSG	5km	Region	Region	Region	Region	Region	-	-
VEGETATION								
VGT NDVI	1km	Region	Region	Region	Region	Region	-	-
VGT FAPAR	1km	Region	Region	Region	Region	Region	-	-
VGT FCOVER	1km	Region	Region	Region	Region	Region	-	-
VGT DMP	1km	Region	Region	Region	Region	Region	-	-
VGT LAI	1km	Region	Region	Region	Region	Region	-	-
FIRE								
MODIS FIRM	1km	Region	Region	Region	Region	Region	-	-
EVAPOTRANSPIRATION								
MSG - LSASAF	3km	Region	Region	Region	Region	Region	-	-
MARINE								
MODIS SST	4km	-	-	-	-	-	Region	Region
PML SST	1km	-	-	-	-	-	Region	Region
MODIS CHLA	4km	-	-	-	-	-	Region	Region
PML CHLA	1km	-	-	-	-	-	Region	Region
MODIS KD490	4km	-	-	-	-	-	Region	Region

MODIS PAR	4km	-	-	-	-	-	Region	Region

WATER BODY

LANDSAT WATER BODY	30m	SubRegion	SubRegion	SubRegion	SubRegion	SubRegion	-	-

Table 7: Datasets to be activated for each THEMA/RIC