

EOG DNB Profile Stat Summary CSV Readme

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Author: Feng Chi (David) Hsu

email: fengchihsu@mines.edu

Objective

This document aims to guide users to use the statistical summary CSV (later referred as stats CSV). Stats CSV contains statistical summaries calculated from the Day Night Band (DNB) radiance temporal profiles for each grid point in the region of interest. This document explains the naming convention of the CSV file, and the meaning of each column in the CSV file.

File Naming

Statistical summary CSV for each region is named as below

[country code]_[region name].[flavor].stats.csv

- Country Code: ISO-3166-3 country code.
- Region Name: Region identifier name, see Table 1 for details.
- Flavor: Process settings. In this release it is "licorr", standing for Lunar Illuminance (LI) corrected.

Table 1 Region Names

Country Code	Region ID	Filename	Comment
bgd	dhaka	bgd_dhaka.licorr.stats.csv	Bangladesh Dhaka
bgd	rohingya_refugee_camp	bgd_rohingya_refugee_camp.licorr.stats.csv	Bangladesh Rohingya Refugee Camp
chn	beijing	chn_beijing.licorr.stats.csv	China Beijing
chn	shanghai	chn_shanghai.licorr.stats.csv	China Shanghai
chn	shdisney	chn_shdisney.licorr.stats.csv	China Shanghai Disney Land
chn	wuhan	chn_wuhan.licorr.stats.csv	China Wuhan
ind	charpakri_bihar	ind_charpakri_bihar.licorr.stats.csv	India Charpakri Bihar
ind	delhi_airport	ind_delhi_airport.licorr.stats.csv	India Delhi Airport
ind	gaya_bihar	ind_gaya_bihar.licorr.stats.csv	India Gaya Bihar
ken	nairobi	ken_nairobi.licorr.stats.csv	Kenya Nairobi
kor	seoul	kor_seoul.licorr.stats.csv	South Korea Seoul
prk	pyongyang	prk_pyongyang.licorr.stats.csv	North Korea Pyongyang
usa	bakken	usa_bakken.licorr.stats.csv	USA Bakken Oil Field
usa	blackrock	usa_blackrock.licorr.stats.csv	USA Blackrock
usa	houston	usa_houston.licorr.stats.csv	USA Houston

usa	ncal	usa_ncal.licorr.stats.csv	USA North California (Santa Rosa)
usa	whitesands	usa_whitesands.licorr.stats.csv	USA Whitesands
yem	marib	yem_marib.licorr.stats.csv	Yemen Marib
yem	sanaa	yem_sanaa.licorr.stats.csv	Yemen Sana'a
zwe	harare	zwe_harare.licorr.stats.csv	Zimbabwe Harare

Header Definition

Table 2 Header Definition for Statistic Summary CSV

Header Name	Definition	Unit
region	Region name ([country code]_[region_id])	Unitless
ptid	Serial ID of grid point (Start from 1)	Unitless
pt_lat	Latitude of grid point	Degrees
pt_lon	Longitude of grid point	Degrees
pt_x	X location of grid point in grid array (Start from 1)	Unitless
pt_y	Y location of grid point in grid array (Start from 1)	Unitless
lidnb_phi_skew	Delete	
lidnb_norm_r2	Delete	
all_li	Delete	
licorr_slope	Slope used for LI correction	Unitless
longterm_slope	Slope of longterm trend line	nW/cm ² /sr/day
longterm_intercept	Intercept of longterm trend line	nW/cm ² /sr
longterm_r2	R square value of longterm trend line	Unitless
all_skew	Skew value for full profile	Unitless
all_kurtosis	Kurtosis value for full profile	Unitless
all_mean	Mean radiance vlaue for full profile	nW/cm ² /sr
all_variance	Variance of radiance value for full profile	nW/cm ² /sr
all_median	Median of radiance value for full profile	nW/cm ² /sr
all_cdfslope	CDF slope value of radiance vlaue for full profile	Unitless
total_count	Count of records	Unitless
primary_lag	Primary lag	days
primary_acf	ACF at primary lag	Unitless
primary_prominence	Prominance at primary lag days	Unitless
secondary_lag	Secondary lag	days

secondary_acf	ACF at secondary lag	Unitless
secondary_prominence	Prominence at secondary lag days	Unitless
annual_cycle	Annual cycle detected	Boolean
pop2018	Population in the grid at 2018	Person
annual_lift	Lift index by year	nW/cm ² /sr
annual_mean	Mean radiance value by year	nW/cm ² /sr
annual_variance	Variance of radiance by year	nW/cm ² /sr
annual_skew	Skew vlue by year	Unitless
annual_kurtosis	Kurtosis value by year	Unitless
annual_cdfslope	CDF slope value by year	Unitless
annual_outage	Outage ratio by year	Unitless
annual_ald	ALD value by year	Unitless