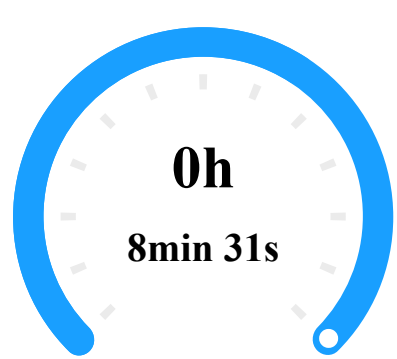


DJI Terra Quality Report

V4.1.0 | 2024-07-01 14:48 | Mission: Sander_2022-01-13_L1_Nadir

Quality Report for LiDAR Point Cloud Processing

Aircraft Data Collection Time



POS Data Collection Time

8min 31s

Point Cloud Data Collection Time

6min 5s

Software Processing Time



Point Cloud Optimization Time ^

5min 28s

• Point Cloud Accuracy Optimization Time

1min 26s

• Point Cloud Colorization Time

10s

• Output Saving Time

53s

• Others

2min 58s

Ground Point Classification Time

1min 16s

DEM Generation Time

3min 44s

Reconstruction Parameters

Point Cloud Optimization Parameters

Use custom base station data	Yes
Scenario	Point Cloud Processing
Point Cloud Density (By Percentage)	High
Point Cloud Effective Distance Range	3-300 m
Accuracy Control and Check	No
Optimize Point Cloud Accuracy	Yes
Smooth Point Cloud	No

Point Cloud Output Parameters

Ground Point Classification	Yes
Ground Point Classification Parameters	Gentle Slope 20 m 6° 0.5 m
DEM	Yes
DEM Parameters	By GSD 0.1 m
Contour	No
Point Cloud Format	PNTS LAS
Merged Output	No
LiDAR Point Cloud Block Count	1
Output Coordinate System	WGS 84 / UTM zone 32N NN2000 height

Mission Parameters

Aircraft Parameters (Aircraft 1)

Hardware Parameters

Payload	DJI Zenmuse L1
Payload SN	3FCDJ9N00455MK
LiDAR Parameters	https://enterprise.dji.com/zenmuse-l1/specs

LiDAR and IMU Calibration Parameters

Parameters	X (m)	Y (m)	Z (m)	roll (rad)	pitch (rad)	yaw (rad)
Before Calibration	0.03508	0.01694	-0.04644	3.1261957	-0.0003296	0.0035991

Flight Parameters (1 Flights)

Average Flight Speed	6.61m/s
Flight Height	78.85m
Ground Beam Diameter	394mm*39mm
Pulse Rate	240kHz
Scan Rate	720kHz

System Parameters

CPU	AMD Ryzen 9 7950X 16-Core Processor 32 cores
GPU Count	1
GPU 0	NVIDIA GeForce RTX 4090
RAM	130805 M

Accuracy Parameters

POS Status

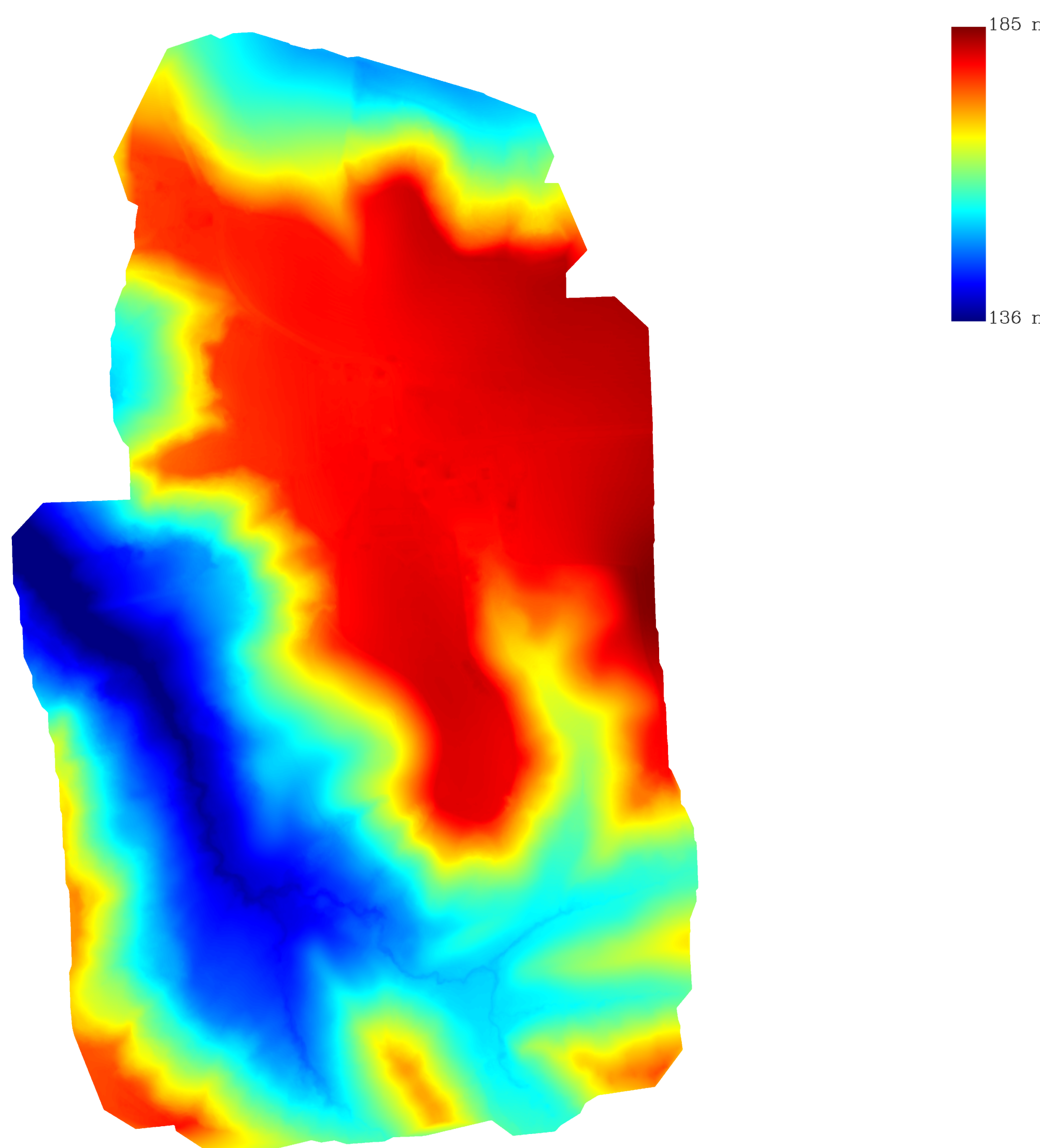
Fix	100.00%
Other	0.00%

IMU Trajectory Error

Parameters	X(E) RMSE	Average X(E)	Y(N) RMSE	Average Y(N)	Z(U) RMSE	Average Z(U)
Location	0.00014 m	0.007 m	0.00008 m	0.00562 m	0.0001 m	0.00577 m
Attitude	0.0000071 rad	0.0001783 rad	0.0000059 rad	0.0001851 rad	0.0000539 rad	0.0005018 rad

Output Preview

DEM



Output Parameters

Point Cloud Density

Scale	Point Cloud Average Density	Point Cloud Standard Density	Grid Side Length	Total Grid Number	Non-conforming Grid Ratio
1:500	453points/m²	16points/m²	0.25 m	2724704	2.13%
1:1000	453points/m²	4points/m²	0.5 m	688388	1.05%
1:2000	453points/m²	1points/m²	1 m	173892	1.03%

Output List

PNTS LAS DEM TIF DEM Tile