

DJI Terra Quality Report

V5.1.1 | 2026-03-31 10:20 | Mission: 20 - Moscar Xaver

Quality Report for LiDAR Point Cloud Processing

Aircraft Data Collection Time



POS Data Collection Time

4min 9s

Point Cloud Data Collection Time

4min 9s

Software Processing Time

POS Calculation

20s

Point Cloud Optimization Time

11min 9s

- POS Calculation20s
- Point Cloud Accuracy Optimization Time45s
- Smoothing Point Cloud Time2min 49s
- Point Cloud Colorization Time18s
- Output Saving Time48s
- Others6min 37s

3D Mesh Generation Time

26min 29s

2D Map Generation Time

6min 32s

Ground Point Classification Time

55s

DEM Generation Time

26s

Contour Generation Time

2s

Reconstruction Parameters

Point Cloud Optimization Parameters

POS Calculation	Data POS
Scenario	Point Cloud Processing
Point Cloud Density (By Sample Distance)	10 cm
Accuracy Control and Check	No
Optimize Point Cloud Accuracy	Yes
Smooth Point Cloud	Yes
Computation Method	Standalone Computation

Point Cloud Output Parameters

Point Cloud Format	PNTS LAS
Merged Output	No
LiDAR Point Cloud Block Count	3
2D Map	Yes
2D Map Parameters	Resolution (Auto) ResolutionHigh
File Format	B3DM PLY
Quality	High
Reduce Model to	50%
Gaussian Splatting	No
Ground Point Classification	Yes
Ground Point Classification Parameters	Gentle Slope Building Max Diagonal 20m Iteration Angle 6° Iteration Distance 0.5m
DEM	Yes
DEM Parameters	Size (Scale) 1:500
Contour	Yes
Contour Parameters	Interval 5m Datum 0m Elevation Annotation Radius 15m Min Contour Length 0m
Output Coordinate System	WGS 84 / UTM zone 32S Default

Mission Parameters

Flight Parameters (1 Flights)

Hardware Parameters

Payload	DJI Zenmuse L2
Payload SN	6U3DN47005X8W3
LiDAR Parameters	https://enterprise.dji.com/zenmuse-l2/specs

LiDAR and IMU Calibration Parameters

Parameters	X	Y	Z	roll	pitch	yaw
Default	0.02667m	0.0145m	-0.04615m	0.0028269 rad	3.1364627 rad	3.1301875 rad

Flight Parameters

Average Flight Speed	5.7m/s
Flight Height	120.38m
Ground Beam Diameter	144mm*48mm
FOV	70°*3°
Pulse Rate	240kHz
Scan Rate	720kHz
Scan Mode	Linear

System Parameters

CPU	Intel Core(TM) i9-10900X CPU @ 3.70GHz 20 cores
GPU Count	1
GPU 0	Quadro RTX 5000
RAM	32475 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	0.00036 m	0.00532 m	0.00033 m	0.0052 m	0.00035 m	0.00671 m
Attitude	0.0000033 rad	0.0000663 rad	0.0000059 rad	0.000068 rad	0.0000463 rad	0.0002385 rad

Flight Strip Accuracy

Number of Flight Strips	Average Altitude Difference	Average Overlap Rate	Altitude Tolerance	Speed Consistency	Flight Route Curvature
1	0.2361 m	0%	0.2361 m	0.25%	0.85°

Flight strip accuracy file is in the report/flight_strip_accuracy folder under the project folder

Point Cloud Accuracy

Point Cloud Density

Scale	Point Cloud Average Density	Point Cloud Standard Density	Grid Side Length	Total Grid Number	Non-conforming Grid Ratio
1:500	174points/m²	16points/m²	0.25 m	1342676	2.99%
1:1000	174points/m²	4points/m²	0.5 m	342688	2.05%
1:2000	174points/m²	1points/m²	1 m	86820	1.32%

Terrain Result Accuracy

Ground Point Cloud Density

Scale	Point Cloud Average Density	Point Cloud Standard Density	Grid Side Length	Total Grid Number	Non-conforming Grid Ratio
1:500	60points/m²	16points/m²	0.25 m	834676	17.18%
1:1000	60points/m²	4points/m²	0.5 m	254948	18.15%
1:2000	60points/m²	1points/m²	1 m	75396	15.46%

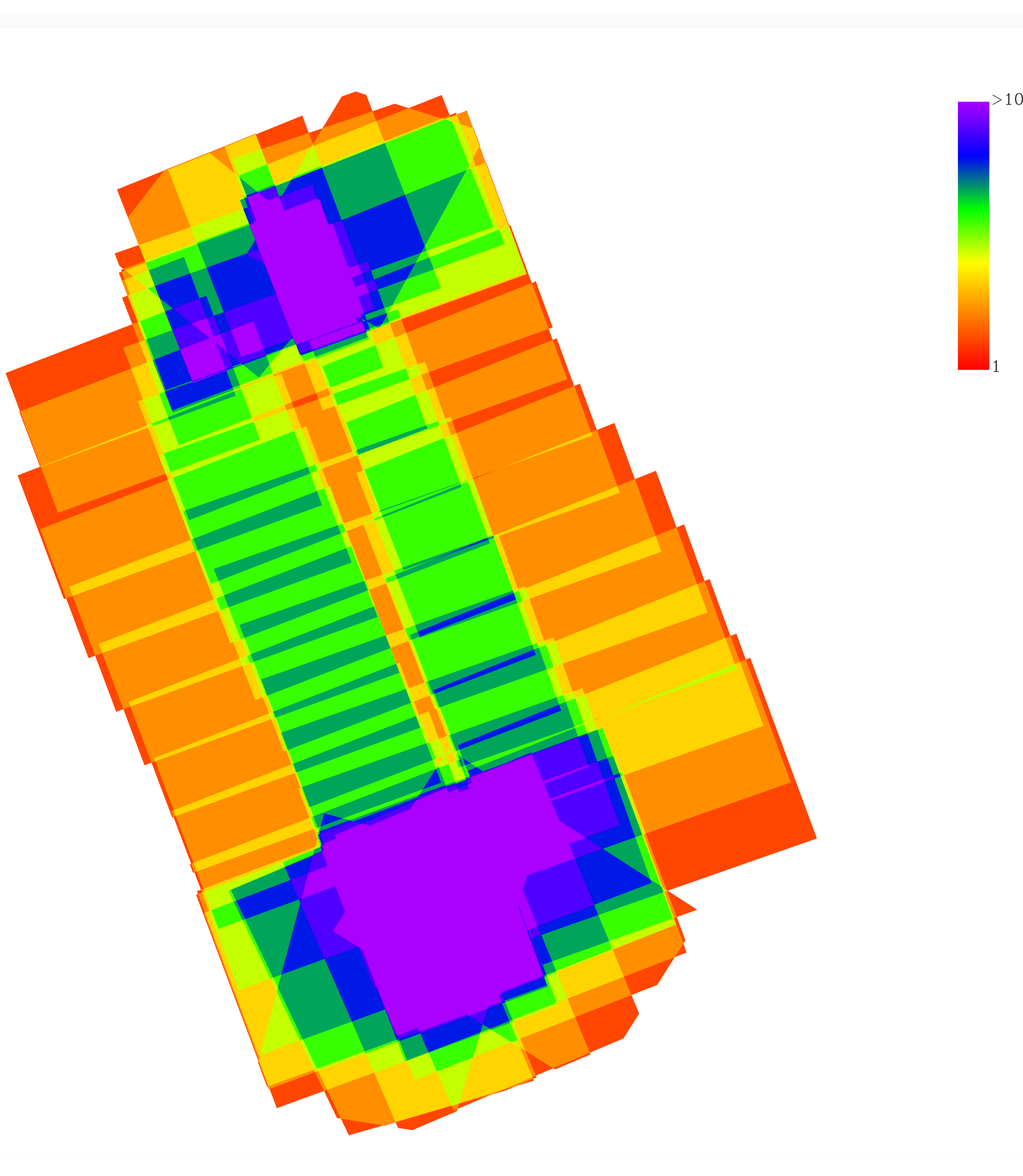
Output Preview

TDOM Preview

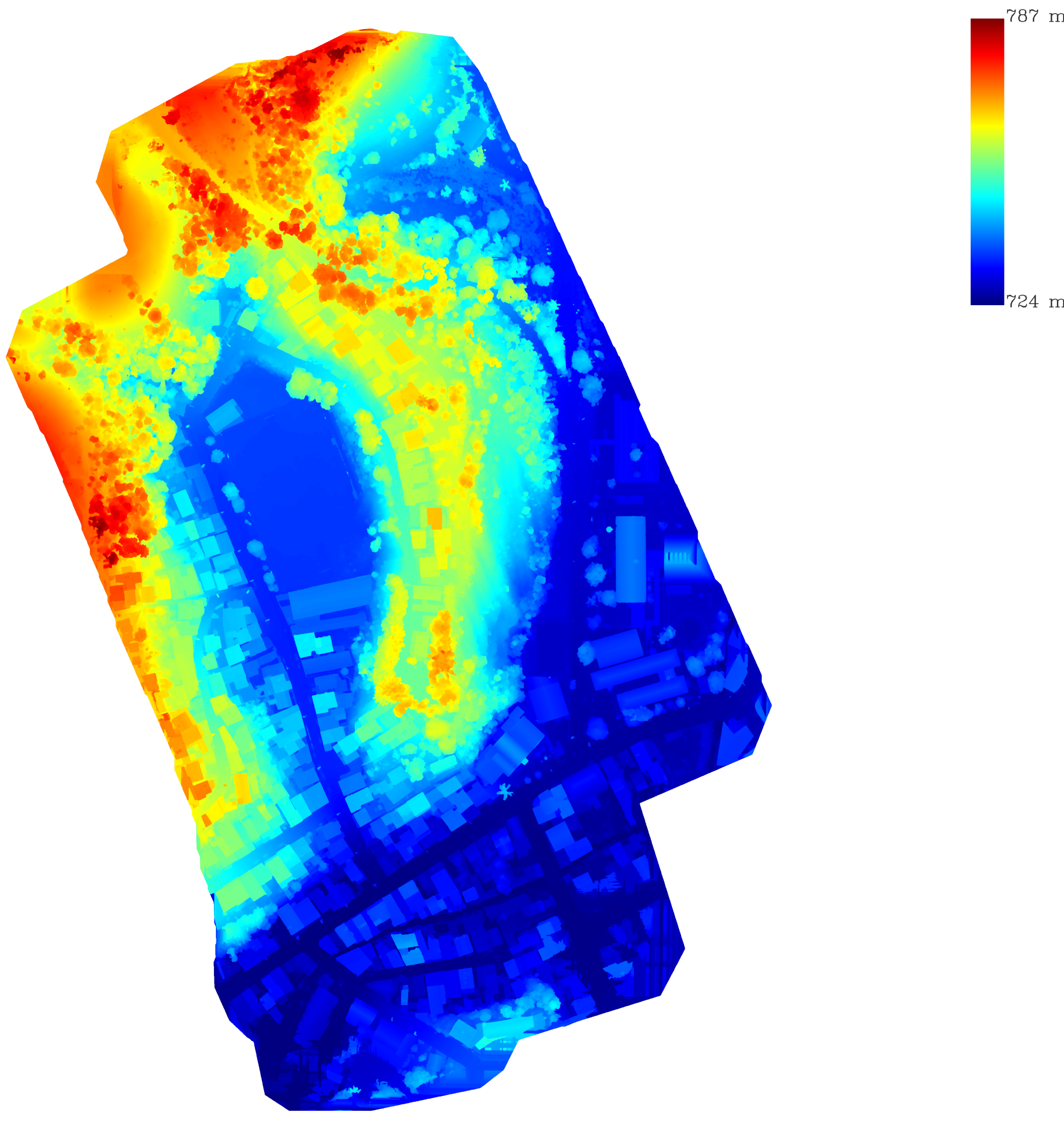


TDOM GSD	3.11 cm/px
TDOM Mapping Coverage	0.132691 km²

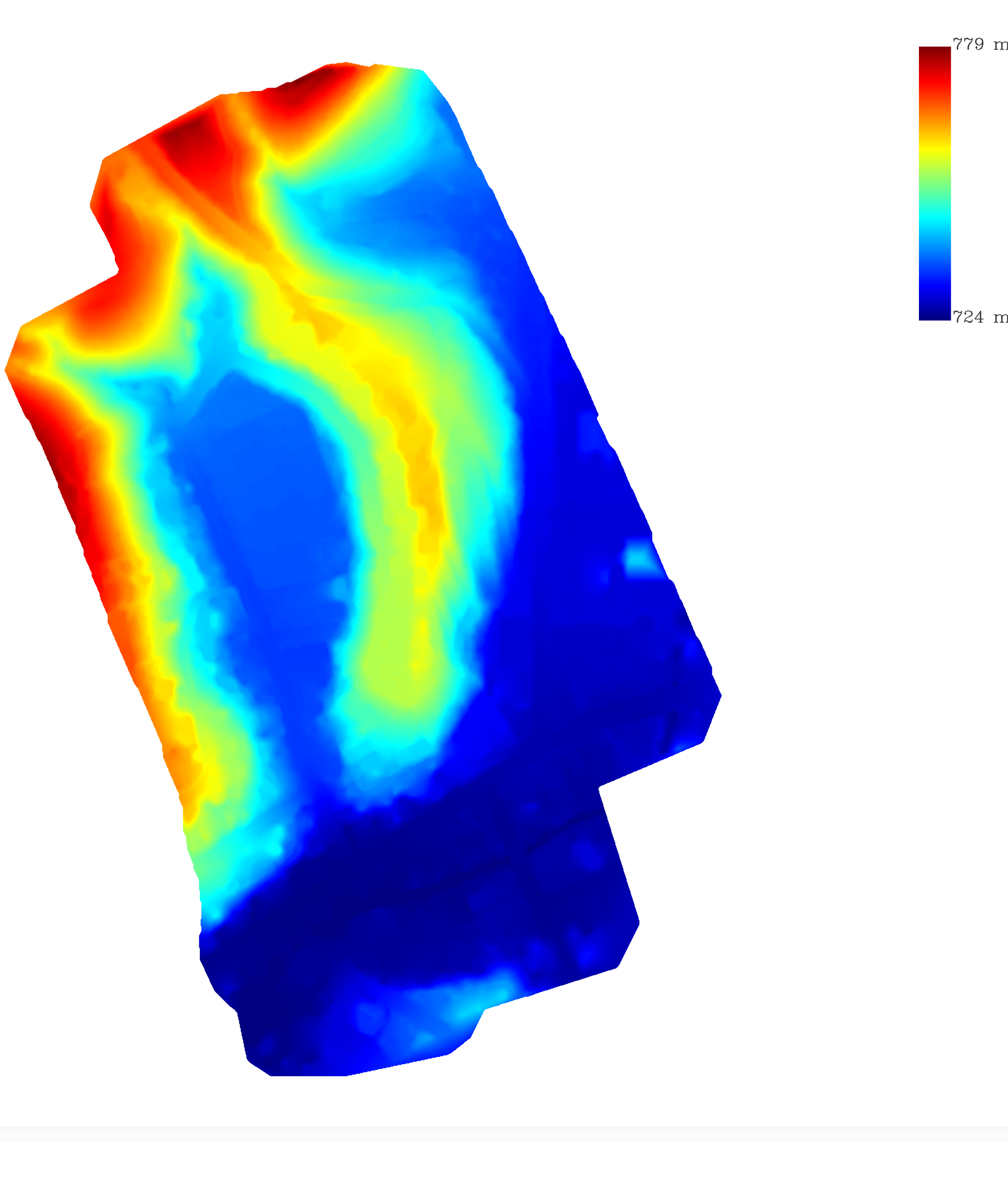
Scene Overlapping



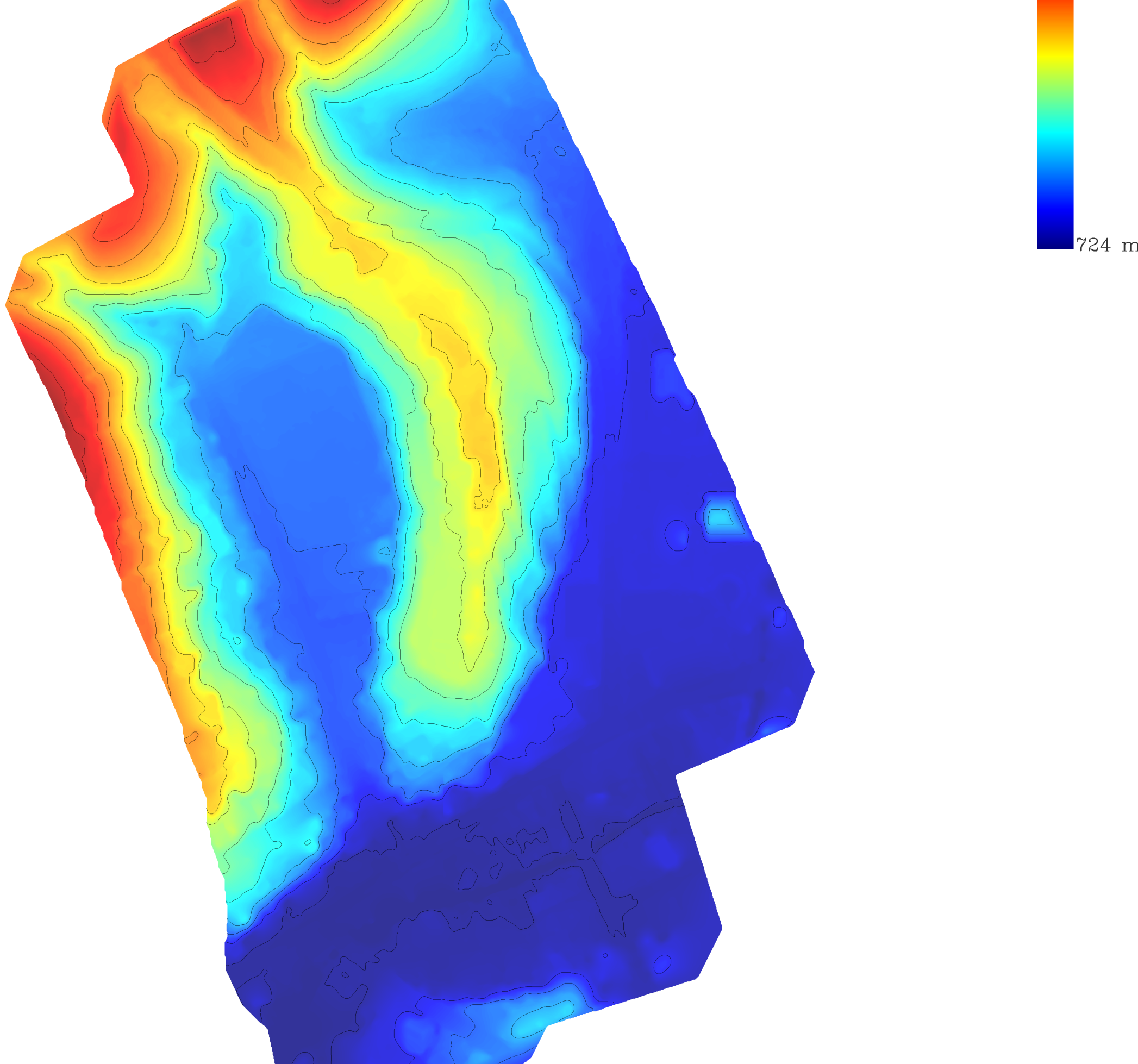
DSM Preview



DEM



Contour



Output Parameters

Output List

- Point Cloud
- PNTS
- LAS
- Model
- B3DM
- PLY
- DEM
- GeoTIF
- Contour
- SHP
- DXF