

Agisoft Metashape

Processing Report

28 June 2022



Survey Data

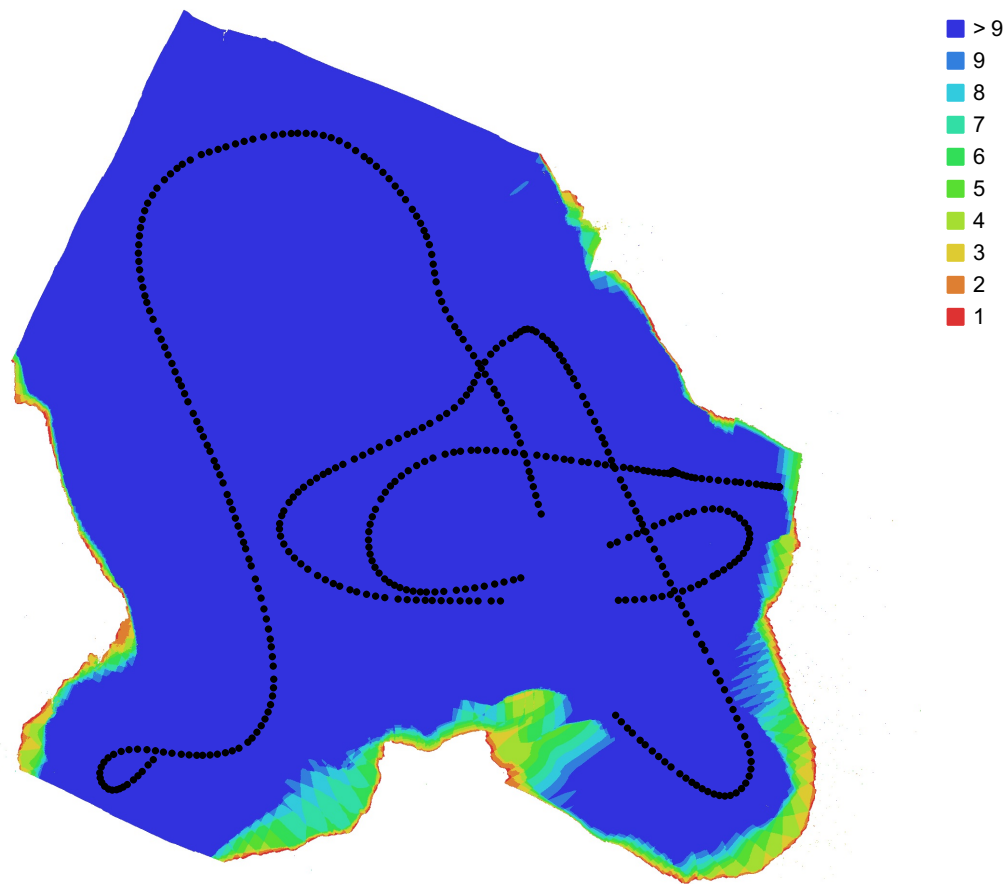


Fig. 1. Camera locations and image overlap.

Number of images: 512

Camera stations: 471

Tie points: 199,709

Projections: 1,433,480

Reprojection error: 1.15 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
unknown	3840 x 2160	unknown	unknown	No

Table 1. Cameras.

Camera Calibration

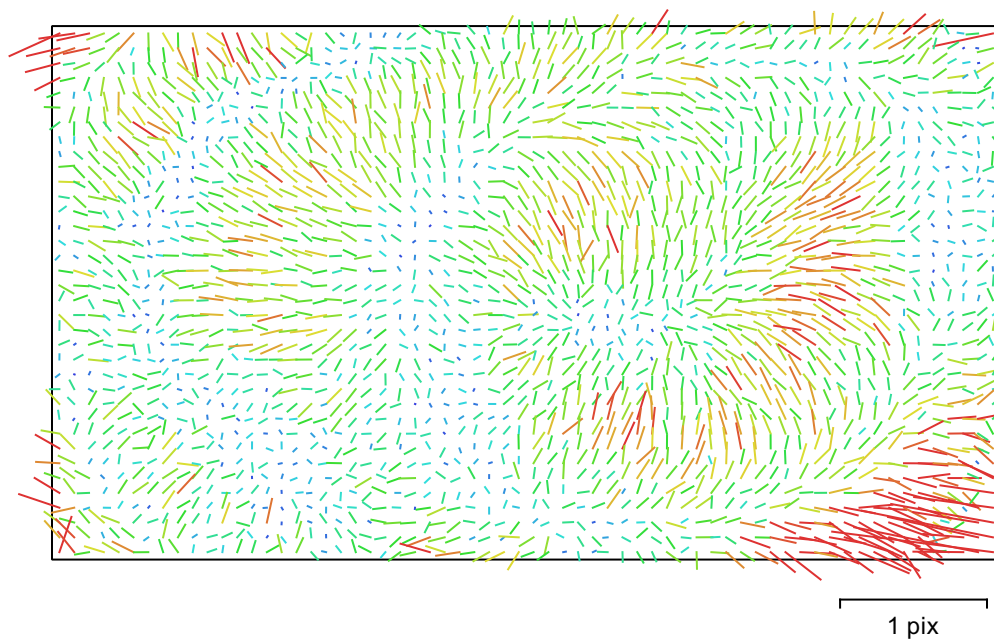


Fig. 2. Image residuals for unknown.

unknown
512 images

Type	Resolution	Focal Length	Pixel Size
Frame	3840 x 2160	unknown	unknown

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	1646.18	0.11	1.00	0.01	-0.92	-0.09	0.55	-0.58	-0.12	-0.27
Cx	25.4164	0.02		1.00	-0.01	-0.06	0.00	0.00	0.66	0.07
Cy	-43.0465	0.046			1.00	0.01	-0.45	0.50	0.11	0.38
K1	-0.0470085	2.7e-05				1.00	-0.68	0.60	-0.09	-0.38
K2	0.0560216	3.5e-05					1.00	-0.98	-0.06	-0.19
K3	-0.0161489	1.4e-05						1.00	0.06	0.22
P1	-0.00399717	3.8e-06							1.00	0.14
P2	0.000297774	4.7e-06								1.00

Table 2. Calibration coefficients and correlation matrix.

Digital Elevation Model

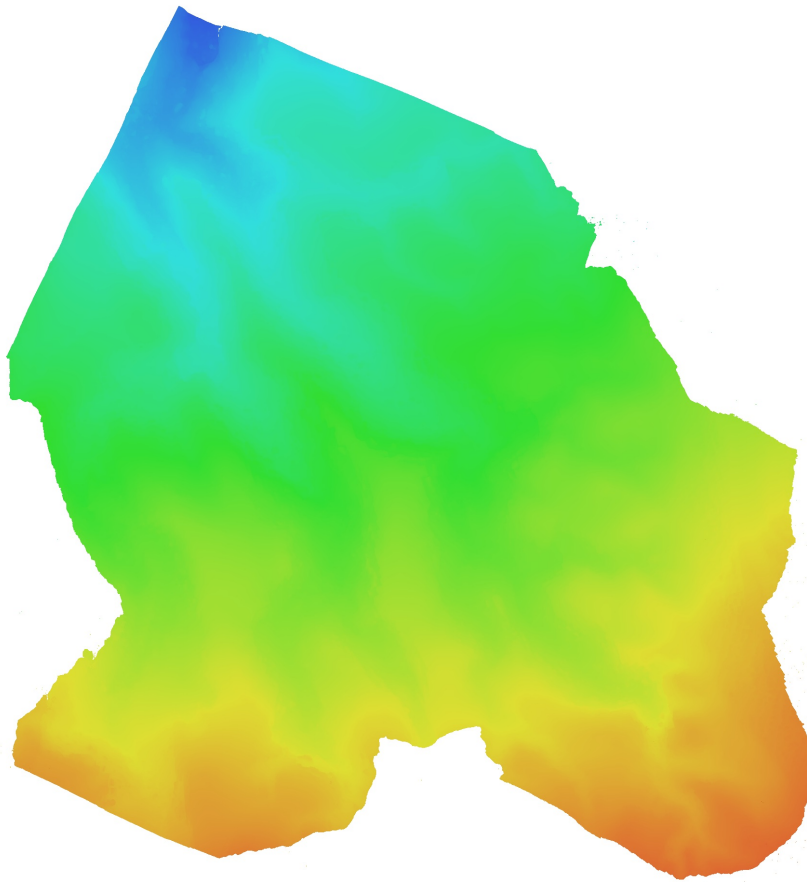


Fig. 3. Reconstructed digital elevation model.

Processing Parameters

General

Cameras	512
Aligned cameras	471
Coordinate system	Local Coordinates (m)
Rotation angles	Yaw, Pitch, Roll

Point Cloud

Points	199,709 of 263,025
RMS reprojection error	0.318047 (1.15125 pix)
Max reprojection error	0.966391 (45.646 pix)
Mean key point size	3.39086 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	8.81104

Alignment parameters

Accuracy	High
Generic preselection	Yes
Reference preselection	No
Key point limit	40,000
Tie point limit	4,000
Exclude stationary tie points	Yes
Guided image matching	Yes
Adaptive camera model fitting	No
Matching time	21 minutes 7 seconds
Matching memory usage	800.29 MB
Alignment time	6 minutes 42 seconds
Alignment memory usage	210.63 MB
Software version	1.7.2.11965
File size	40.75 MB

Depth Maps

Count	471
Depth maps generation parameters	
Quality	Ultra High
Filtering mode	Mild
Processing time	54 minutes 41 seconds
Memory usage	2.87 GB
Software version	1.7.2.11965
File size	6.33 GB

Dense Point Cloud

Points	166,795,869
Point colors	3 bands, uint8
Depth maps generation parameters	
Quality	Ultra High
Filtering mode	Mild
Processing time	54 minutes 41 seconds
Memory usage	2.87 GB
Dense cloud generation parameters	
Processing time	7 hours 59 minutes
Memory usage	21.37 GB
Software version	1.7.2.11965
File size	2.36 GB

Model

Faces	33,358,986
Vertices	16,699,480
Vertex colors	3 bands, uint8
Texture	4,096 x 4,096, 4 bands, uint8
Depth maps generation parameters	
Quality	Ultra High
Filtering mode	Mild
Processing time	54 minutes 41 seconds
Memory usage	2.87 GB
Reconstruction parameters	
Surface type	Arbitrary
Source data	Dense cloud
Interpolation	Enabled
Strict volumetric masks	No
Processing time	2 hours 25 minutes
Memory usage	57.98 GB
Texturing parameters	
Mapping mode	Adaptive orthophoto
Blending mode	Mosaic
Texture size	4,096
Enable hole filling	No
Enable ghosting filter	Yes
UV mapping time	2 minutes 38 seconds
UV mapping memory usage	3.61 GB
Blending time	4 seconds
Blending memory usage	935.30 MB
Software version	1.7.2.11965
File size	1.39 GB
Tiled Model	
Texture	3 bands, uint8
Depth maps generation parameters	
Quality	Ultra High
Filtering mode	Mild
Processing time	54 minutes 41 seconds
Memory usage	2.87 GB
Reconstruction parameters	
Source data	Dense cloud
Tile size	256
Face count	High
Enable ghosting filter	No
Processing time	3 hours 59 minutes
Memory usage	9.46 GB
Software version	1.7.2.11965
File size	615.58 MB
System	
Software name	Agisoft Metashape Professional
Software version	1.7.2 build 11965
OS	Windows 64 bit
RAM	63.92 GB
CPU	Intel(R) Core(TM) i5-9400F CPU @ 2.90GHz
GPU(s)	NVIDIA GeForce RTX 2070