

Agisoft Metashape

Processing Report
06 May 2022



Survey Data

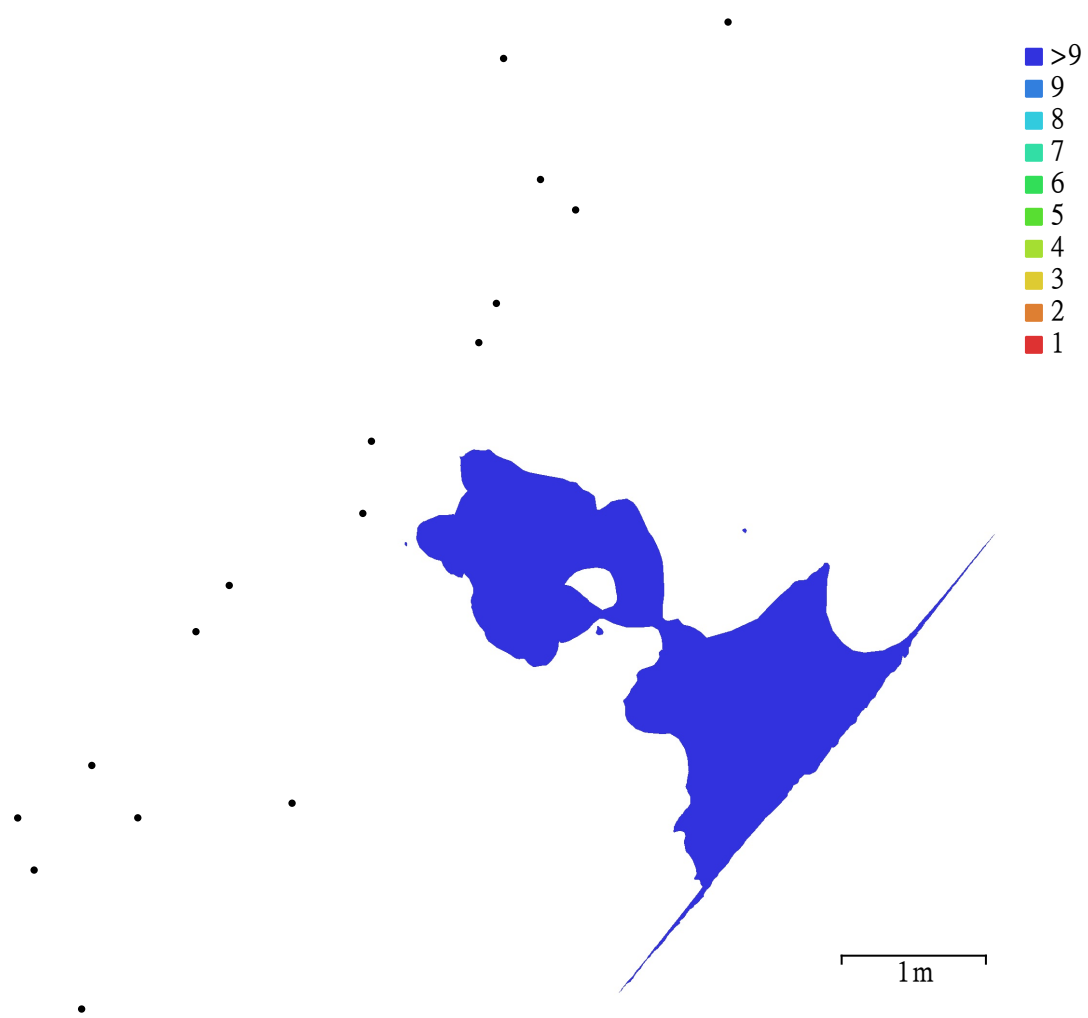


Fig. 1. Camera locations and image overlap.

Number of images:	16	Camera stations:	16
Flying altitude:	4.63 m	Tie points:	12,719
Ground resolution:	1.54 mm/pix	Projections:	27,586
Coverage area:	3.49 m ²	Reprojection error:	2.71 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
iPhone 13 mini, iPhone 13 mini back du...	4032 x 3024	5.1 mm	1.68 x 1.68 μ m	No

Table 1. Cameras.

Camera Calibration

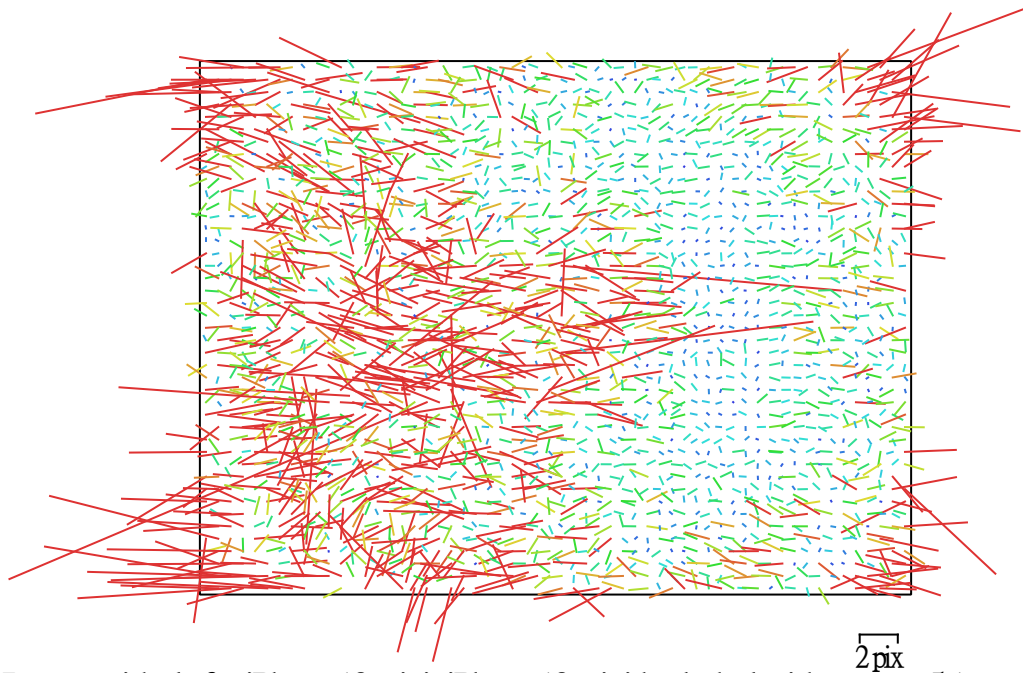


Fig. 2. Image residuals for iPhone 13 mini, iPhone 13 mini back dual wide camera 5.1mm f/1.6 (5.1mm).

iPhone 13 mini, iPhone 13 mini back dual wide camera 5.1mm f/1.6 (5.1mm)

16 images

Type	Resolution	Focal Length	Pixel Size
Frame	4032 x 3024	5.1 mm	1.68 x 1.68 μm

	Value	Error	K1	P1	P2
F	3028.66				
K1	-0.00935762	0.00046	1.00	-0.47	0.05
P1	-0.0104069	0.00018		1.00	0.01
P2	0.0020059	6.6e-05			1.00

Table 2. Calibration coefficients and correlation matrix.

Camera Locations

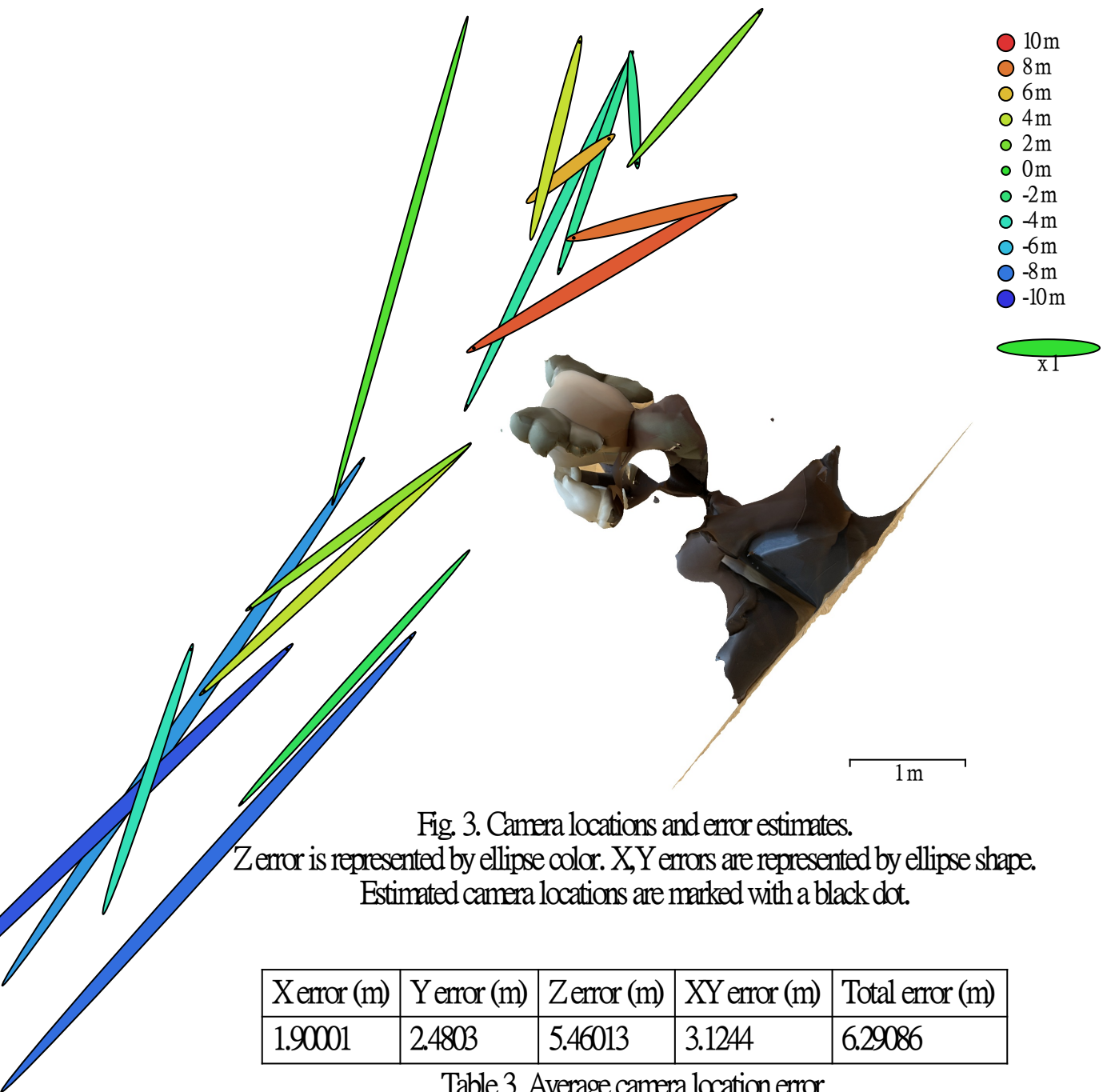


Table 3. Average camera location error.
 X - Longitude, Y - Latitude, Z - Altitude.

Digital Elevation Model

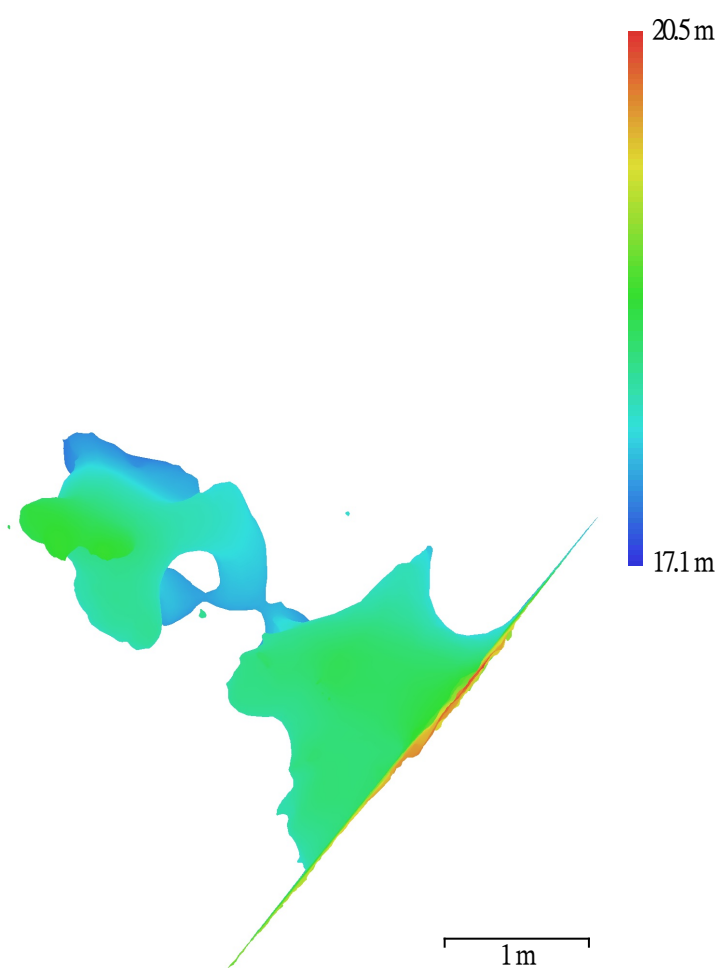


Fig. 4. Reconstructed digital elevation model.

Resolution: 1.66 cm/pix
Point density: 0.363 points/cm²

Processing Parameters

General

Cameras	16
Aligned cameras	16
Coordinate system	WGS 84 (EPSG:4326)
Rotation angles	Yaw, Pitch, Roll

Point Cloud

Points	12,719 of 15,518
RMS reprojection error	0.592352 (2.71108 pix)
Max reprojection error	1.91755 (56.3833 pix)
Mean key point size	4.73293 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	2.20518

Alignment parameters

Accuracy	High
Generic preselection	No
Reference preselection	No
Key point limit	40,000
Key point limit per Mpx	1,000
Tie point limit	4,000
Exclude stationary tie points	Yes
Guided image matching	No
Adaptive camera model fitting	Yes
Matching time	21 seconds
Matching memory usage	705.12 MB
Alignment time	9 seconds
Alignment memory usage	30.12 MB

Optimization parameters

Parameters	f, k1-k3, p1, p2
Adaptive camera model fitting	Yes
Optimization time	1 seconds

Date created	2022:05:06 13:08:06
Software version	1.8.3.14331
File size	880.39 KB

Depth Maps

Count	12
Depth maps generation parameters	
Quality	High
Filtering mode	Moderate
Max neighbors	16
Processing time	7 minutes 14 seconds
File size	18.75 MB

Dense Point Cloud

Points	3,074,846
Point colors	3 bands, uint8
Depth maps generation parameters	
Quality	High
Filtering mode	Moderate
Max neighbors	16
Processing time	4 minutes 34 seconds
Dense cloud generation parameters	

Processing time	36 seconds
Date created	2022:05:06 13:19:10
Software version	1.8.3.14331
File size	89.05 MB
Model	
Faces	34,682
Vertices	17,604
Vertex colors	3 bands, uint8
Texture	1,024 x 1,024 x 4, 4 bands, uint8
Depth maps generation parameters	
Quality	High
Filtering mode	Moderate
Max neighbors	16
Processing time	7 minutes 14 seconds
Reconstruction parameters	
Surface type	Arbitrary
Source data	Depth maps
Interpolation	Enabled
Strict volumetric masks	No
Processing time	36 seconds
Memory usage	825.84 MB
Texturing parameters	
Mapping mode	Generic
Blending mode	Mosaic
Texture size	1,024
Enable hole filling	Yes
Enable ghosting filter	No
UV mapping time	17 seconds
UV mapping memory usage	42.03 MB
Blending time	5 seconds
Blending memory usage	1.11 GB
Blending GPU memory usage	349.83 MB
Date created	2022:05:06 13:33:07
Software version	1.8.3.14331
File size	5.87 MB
System	
Software name	Agisoft Metashape Professional
Software version	1.8.3 build 14331
OS	Windows 64 bit
RAM	15.92 GB
CPU	Intel(R) Core(TM) i7-8650U CPU @ 1.90GHz
GPU(s)	GeForce GTX 1060