

Agisoft Metashape

Processing Report

12 July 2024



Survey Data

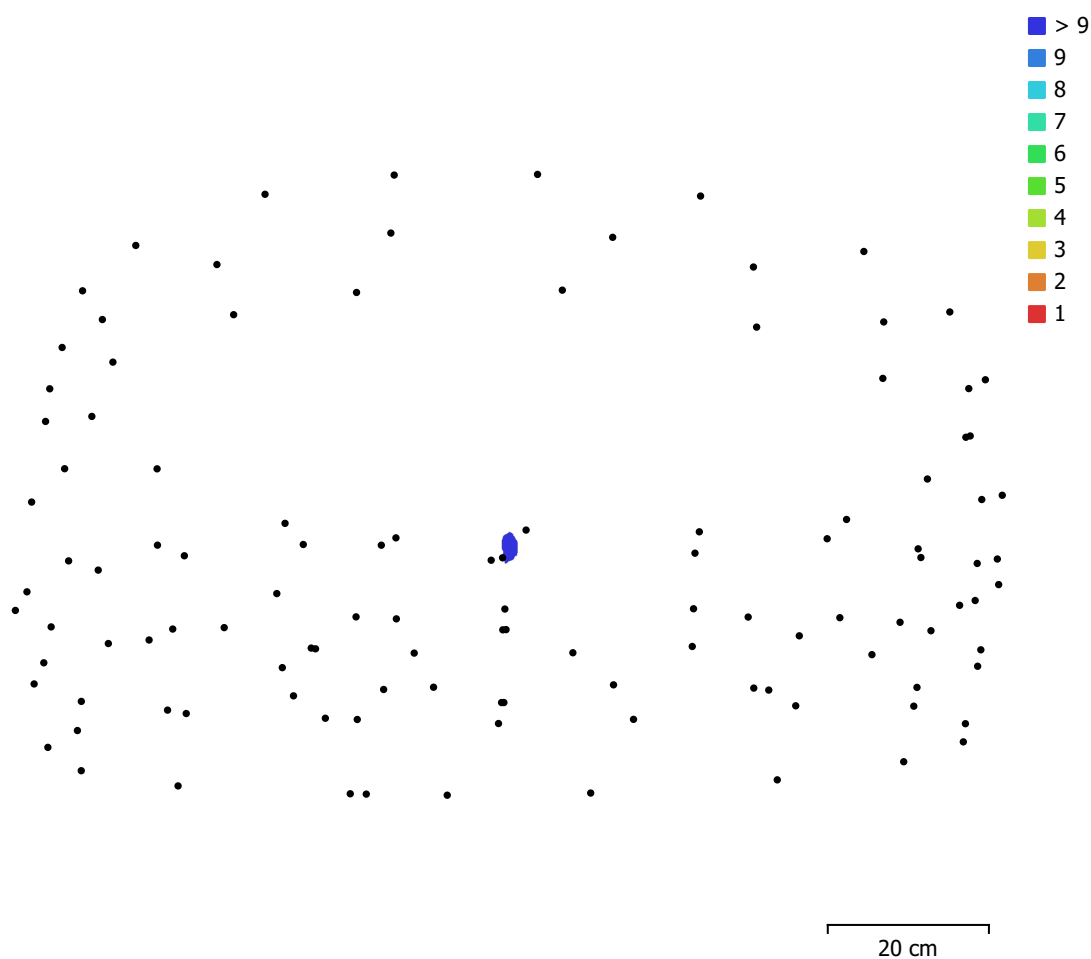


Fig. 1. Camera locations and image overlap.

Number of images:	116	Camera stations:	116
Flying altitude:	60.9 cm	Tie points:	51,922
Ground resolution:	0.0385 mm/pix	Projections:	142,035
Coverage area:	5.87 cm ²	Reprojection error:	0.726 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
DMC-G7 (60mm)	4592 x 2584	60 mm	3.79 x 3.79 μm	No
DMC-G7 (60mm)	4592 x 2584	60 mm	3.79 x 3.79 μm	No

Table 1. Cameras.

Camera Calibration

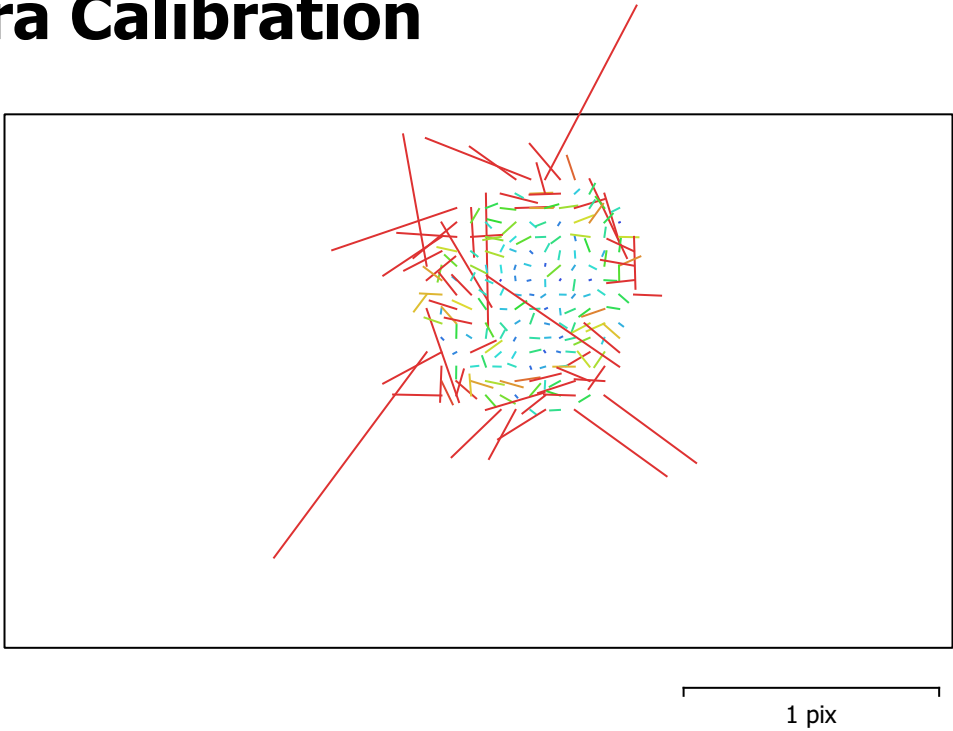


Fig. 2. Image residuals for DMC-G7 (60mm).

DMC-G7 (60mm)

57 images

Type	Resolution	Focal Length	Pixel Size
Frame	4592 x 2584	60 mm	3.79 x 3.79 μm

	Value	Error	K1	P1	P2
F	15831.7				
K1	0.143479	0.0034	1.00	-0.25	-0.27
P1	5.63552e-05	0.00015		1.00	0.01
P2	-0.012235	0.00039			1.00

Table 2. Calibration coefficients and correlation matrix.

Camera Calibration

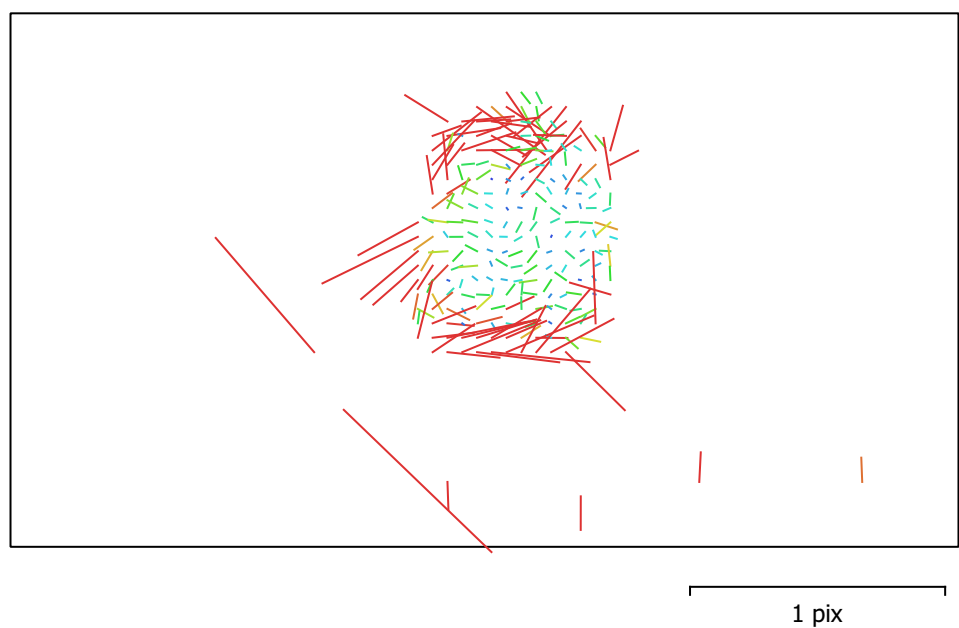


Fig. 3. Image residuals for DMC-G7 (60mm).

DMC-G7 (60mm)

59 images

Type	Resolution	Focal Length	Pixel Size
Frame	4592 x 2584	60 mm	3.79 x 3.79 μm

	Value	Error	P1	P2
F	15831.7			
P1	-0.000652734	0.00014	1.00	0.07
P2	-0.000982473	0.0003		1.00

Table 3. Calibration coefficients and correlation matrix.

Scale Bars

Label	Distance (m)	Error (m)
target 19_target 20	0.05	-5.94316e-14
Total		5.94316e-14

Table 4. Control scale bars.

Digital Elevation Model

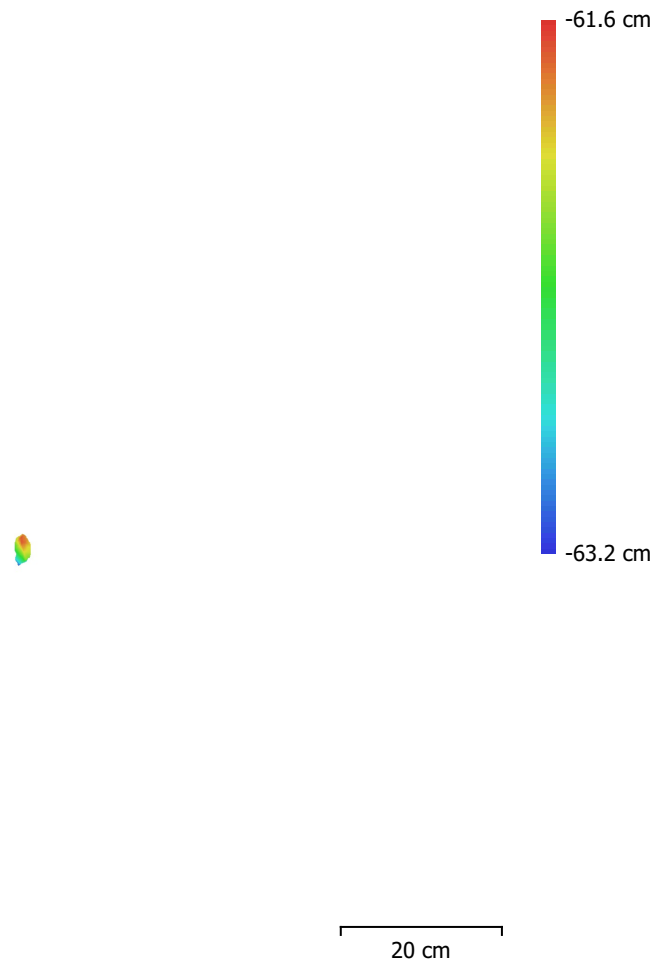


Fig. 4. Reconstructed digital elevation model.

Resolution: 0.106 mm/pix
Point density: 88.3 points/mm²

Processing Parameters

General

Cameras	116
Aligned cameras	116
Markers	4
Scale bars	1
Coordinate system	Local Coordinates (m)
Rotation angles	Yaw, Pitch, Roll

Point Cloud

Points	51,922 of 154,828
RMS reprojection error	0.301373 (0.726146 pix)
Max reprojection error	1.06527 (14.6365 pix)
Mean key point size	2.27819 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	2.56788
File size	7.71 MB

Depth Maps

Count	114
Depth maps generation parameters	
Quality	Medium
Filtering mode	Mild
Max neighbors	16
Processing time	43 seconds
Memory usage	1.01 GB
Date created	2024:07:12 13:23:21
Software version	1.8.4.14671
File size	3.90 MB

Model

Faces	204,906
Vertices	102,455
Vertex colors	3 bands, uint8
Texture	16,384 x 16,384, 4 bands, uint8

Texturing parameters

Mapping mode	Generic
Blending mode	Mosaic
Texture size	16,384
Enable hole filling	Yes
Enable ghosting filter	Yes
UV mapping time	20 seconds
UV mapping memory usage	345.61 MB
Blending time	43 seconds
Blending memory usage	8.06 GB
Blending GPU memory usage	6.40 GB
File size	82.69 MB

System

Software name	Agisoft Metashape Professional
Software version	1.8.4 build 14671
OS	Windows 64 bit
RAM	127.71 GB
CPU	Intel(R) Core(TM) i9-10940X CPU @ 3.30GHz

GPU(s)

Quadro RTX 5000