

Agisoft Metashape

Processing Report

12 June 2019



Survey Data

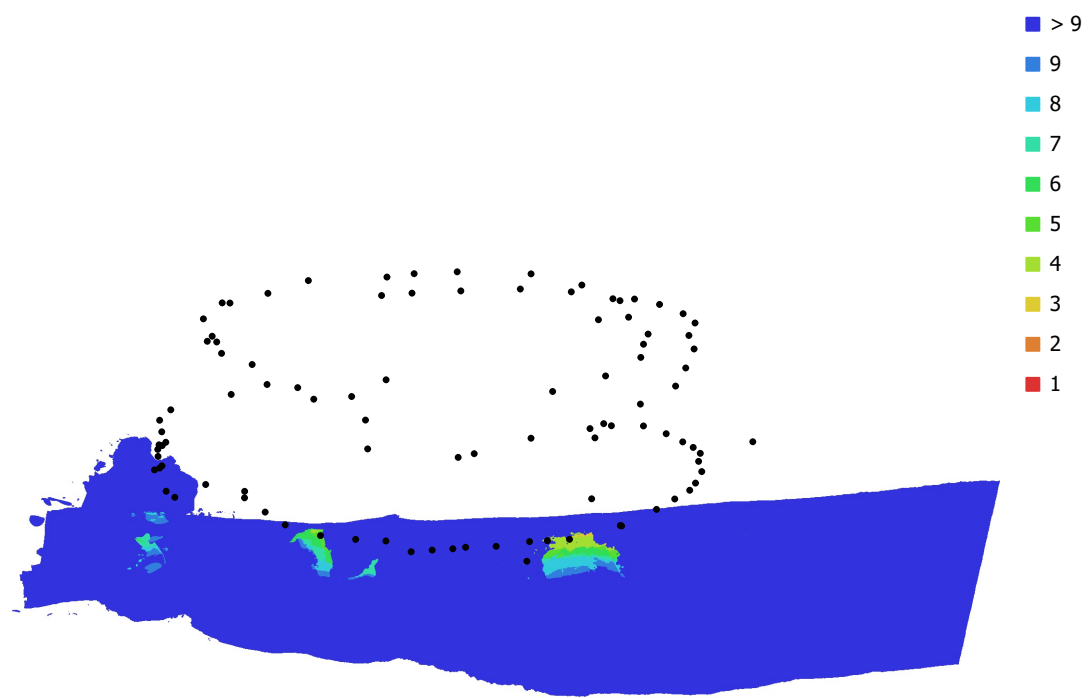


Fig. 1. Camera locations and image overlap.

Number of images:	99	Camera stations:	98
		Tie points:	74,783
		Projections:	315,299
		Reprojection error:	0.906 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
Canon PowerShot G12 (6.1mm)	3648 x 2736	6.1 mm	2.03 x 2.03 μ m	No

Table 1. Cameras.

Camera Calibration

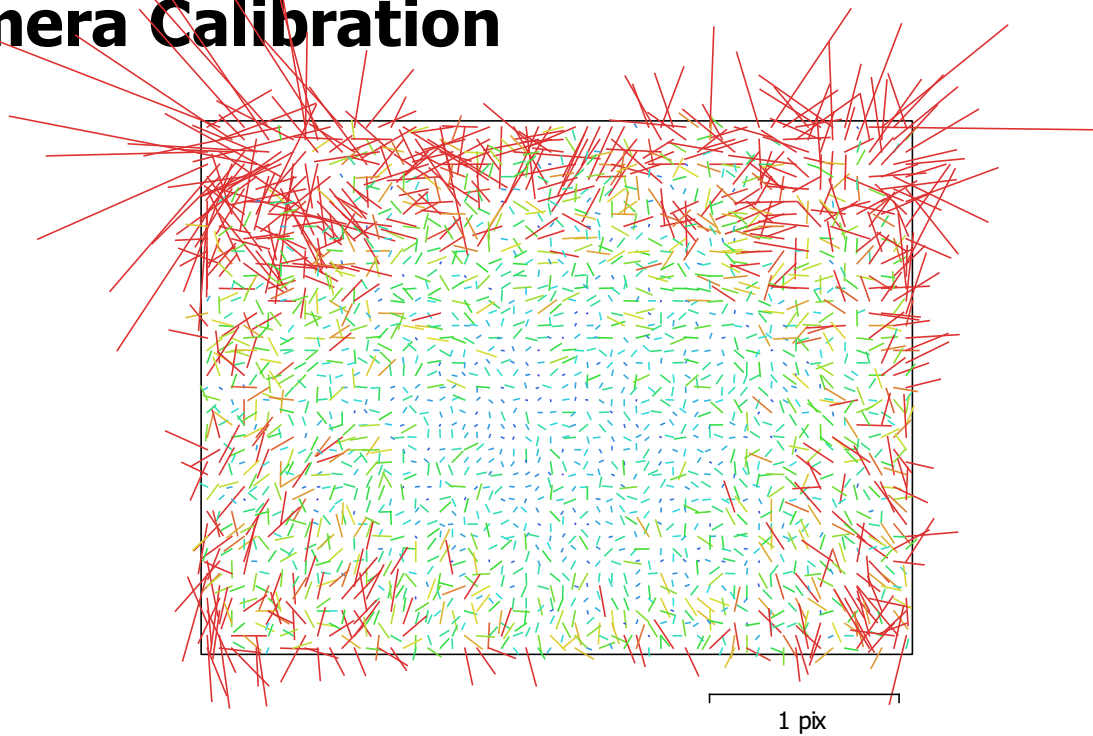


Fig. 2. Image residuals for Canon PowerShot G12 (6.1mm).

Canon PowerShot G12 (6.1mm)

99 images

Type
Frame

Resolution
3648 x 2736

Focal Length
6.1 mm

Pixel Size
2.03 x 2.03 μm

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	3077.33	0.094	1.00	-0.04	-0.49	-0.21	0.25	-0.21	-0.01	-0.24
Cx	-16.5269	0.14		1.00	-0.01	0.01	0.00	0.01	0.88	-0.02
Cy	-93.445	0.13			1.00	-0.01	-0.02	0.02	-0.06	0.56
K1	-0.154214	0.00012				1.00	-0.95	0.88	-0.01	-0.10
K2	0.140583	0.00046					1.00	-0.98	0.00	0.04
K3	-0.0383513	0.00057						1.00	0.01	-0.03
P1	0.000182196	1.1e-005							1.00	-0.01
P2	-0.000666383	9e-006								1.00

Table 2. Calibration coefficients and correlation matrix.

Digital Elevation Model

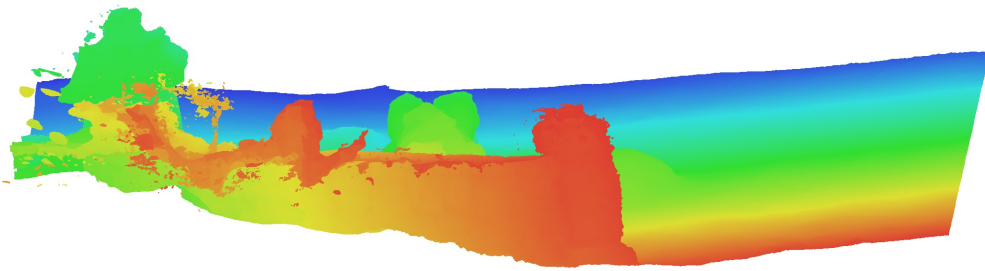


Fig. 3. Reconstructed digital elevation model.

Processing Parameters

General

Cameras	99
Aligned cameras	98
Coordinate system	Local Coordinates (m)
Rotation angles	Yaw, Pitch, Roll

Point Cloud

Points	74,783 of 98,118
RMS reprojection error	0.348137 (0.90606 pix)
Max reprojection error	1.08218 (26.5575 pix)
Mean key point size	2.83681 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	4.36914

Alignment parameters

Accuracy	Highest
Generic preselection	Yes
Key point limit	70,000
Tie point limit	4,000
Adaptive camera model fitting	No
Matching time	13 minutes 28 seconds
Alignment time	1 minutes 9 seconds
Software version	1.5.2.7838

Depth Maps

Count	98
Depth maps generation parameters	
Quality	High
Filtering mode	Mild
Processing time	1 days 10 hours

Dense Point Cloud

Points	18,481,282
Point colors	3 bands, uint8

Depth maps generation parameters

Quality	High
Filtering mode	Mild
Processing time	1 days 10 hours

Dense cloud generation parameters

Processing time	1 hours 39 minutes
Software version	1.5.2.7838

Model

Faces	3,696,197
Vertices	1,854,835
Vertex colors	3 bands, uint8
Texture	4,096 x 4,096, 4 bands, uint8

Depth maps generation parameters

Quality	High
Filtering mode	Mild
Processing time	1 days 10 hours

Reconstruction parameters

Surface type	Arbitrary
Source data	Dense cloud

General

Interpolation	Enabled
Strict volumetric masks	No
Processing time	23 minutes 22 seconds

Texturing parameters

Blending mode	Mosaic
Texture size	4,096
Enable hole filling	Yes
Enable ghosting filter	Yes
UV mapping time	2 minutes 17 seconds
Blending time	12 minutes 28 seconds
Software version	1.5.2.7838

Software

Version	1.5.2 build 7838
Platform	Windows 64