

Agisoft Metashape

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Survey Data



Fig. 1. Camera locations and image overlap.

Number of images: 24

Camera stations: 24

Tie points: 27,722

Projections: 72,724

Reprojection error: 0.313 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
Canon EOS 70D (22mm)	5472 x 3648	22 mm	4.17 x 4.17 μm	No

Table 1. Cameras.

Camera Calibration

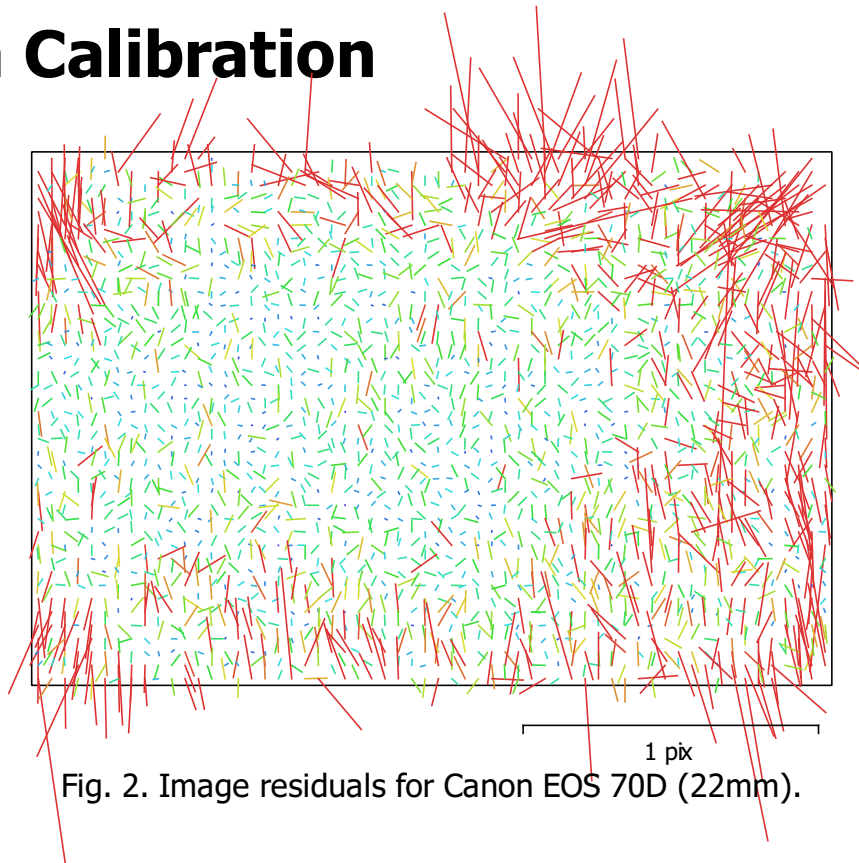


Fig. 2. Image residuals for Canon EOS 70D (22mm).

Canon EOS 70D (22mm)

24 images

Type	Resolution	Focal Length	Pixel Size
Frame	5472 x 3648	22 mm	4.17 x 4.17 μm

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	5161.48	0.19	1.00	-0.03	-0.31	-0.09	0.08	-0.03	-0.11	-0.11
Cx	18.7858	0.21		1.00	0.02	0.04	-0.04	-0.00	0.77	-0.12
Cy	-41.1296	0.21			1.00	0.01	0.00	-0.00	-0.01	0.44
K1	-0.13911	0.00012				1.00	-0.96	0.90	0.03	-0.05
K2	0.195294	0.00071					1.00	-0.98	-0.00	0.03
K3	0.0601637	0.0013						1.00	-0.04	-0.04
P1	0.00114054	1.1e-005							1.00	-0.08
P2	-0.00146667	7.2e-006								1.00

Table 2. Calibration coefficients and correlation matrix.

Digital Elevation Model

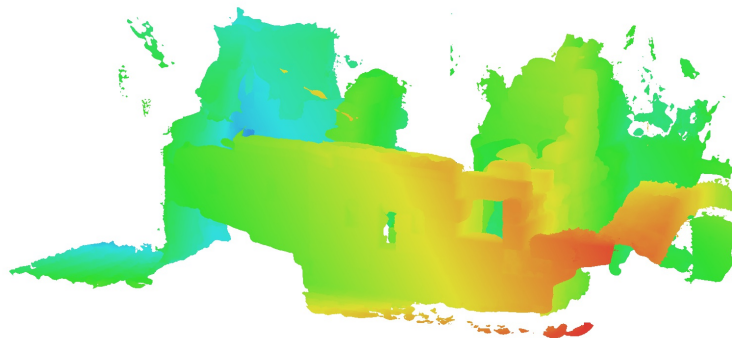


Fig. 3. Reconstructed digital elevation model.

Processing Parameters

General

Cameras	24
Aligned cameras	24

Point Cloud

Points	27,722 of 29,387
RMS reprojection error	0.0856999 (0.312568 pix)
Max reprojection error	0.257919 (7.56067 pix)
Mean key point size	3.21985 pix
Point colors	3 bands, uint8
Key points	Yes
Average tie point multiplicity	2.68159

Alignment parameters

Accuracy	High
Generic preselection	No
Key point limit	40,000
Tie point limit	4,000
Filter points by mask	Yes
Mask tie points	No
Adaptive camera model fitting	No
Matching time	5 minutes 2 seconds
Alignment time	13 seconds

Depth Maps

Count	24
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Reconstruction parameters

Quality	High
Filtering mode	Aggressive
Processing time	11 minutes 39 seconds

Dense Point Cloud

Points	16,494,056
Point colors	3 bands, uint8

Reconstruction parameters

Quality	High
Depth filtering	Aggressive
Depth maps generation time	11 minutes 39 seconds
Dense cloud generation time	2 minutes 19 seconds

Model

Faces	3,298,802
Vertices	1,663,497
Vertex colors	3 bands, uint8

Reconstruction parameters

Surface type	Arbitrary
Source data	Dense
Interpolation	Enabled
Quality	High
Depth filtering	Aggressive
Face count	3,298,802
Processing time	41 minutes 26 seconds

Software

Version	1.5.0 build 7492
Platform	Windows 64