

Focus Stacking - Metoda B

Protokol
27 May 2024



Survey Data

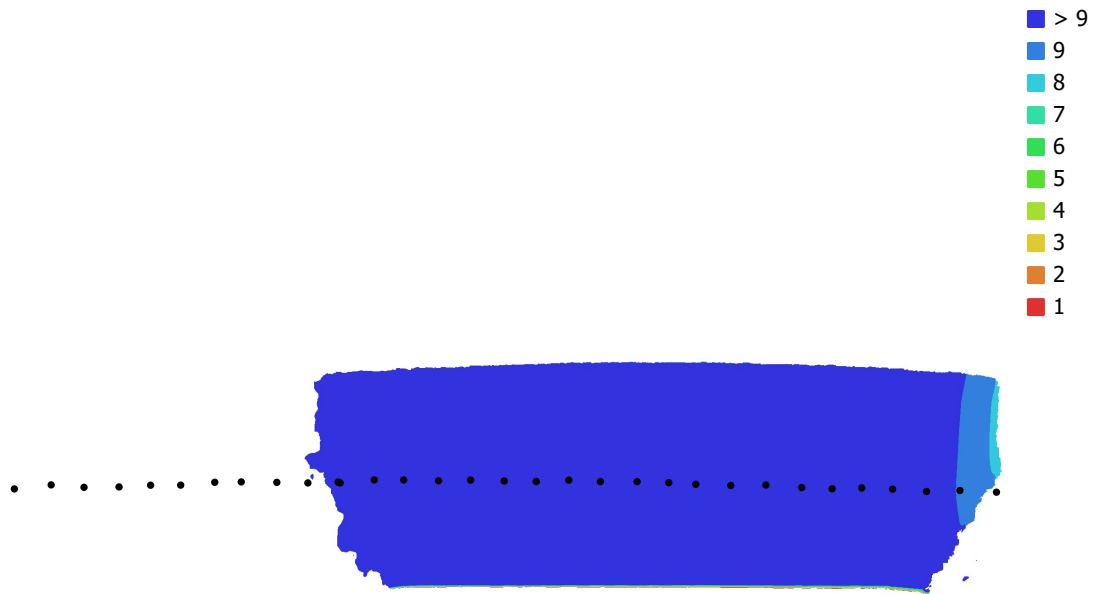


Fig. 1. Camera locations and image overlap.

Number of images: 32

Camera stations: 32

Tie points: 318,848

Projections: 1,507,935

Reprojection error: 0.494 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
NIKON Z 50 (40mm)	5566 x 3710	40 mm	unknown	No

Table 1. Cameras.

Camera Calibration

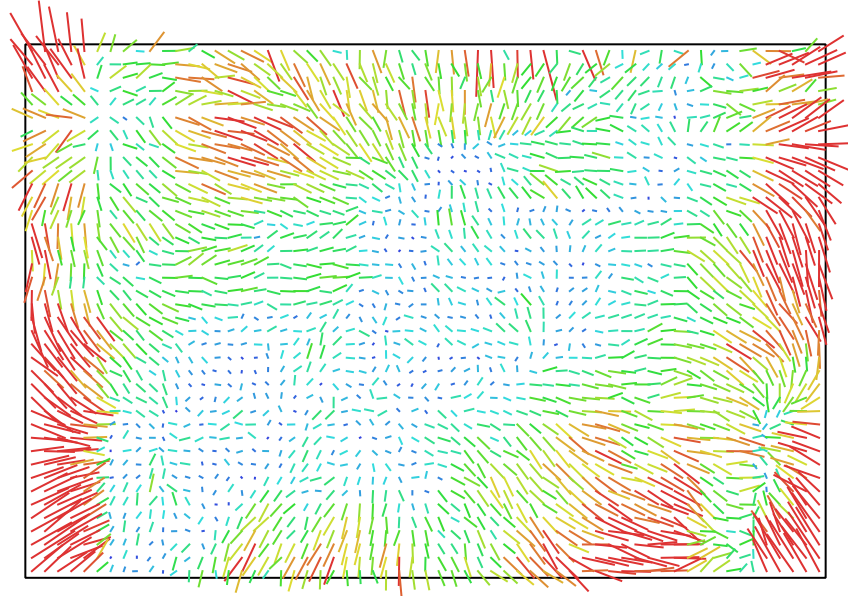


Fig. 2. Image residuals for NIKON Z 50 (40mm).

NIKON Z 50 (40mm)

32 images

Type	Resolution	Focal Length	Pixel Size
Frame	5566 x 3710	40 mm	unknown

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	14726.1	41	1.00	-0.10	-0.65	0.60	0.04	-0.03	-0.12	-0.42
Cx	-60.2707	18		1.00	0.08	0.01	-0.03	0.05	0.94	0.05
Cy	-65.3074	20			1.00	-0.41	-0.02	0.02	0.07	0.85
K1	0.0973329	0.00076				1.00	-0.17	0.16	0.01	-0.51
K2	0.00646977	0.01					1.00	-0.98	-0.04	-0.03
K3	0.0239527	0.14						1.00	0.06	0.05
P1	-0.000625943	0.00032							1.00	0.05
P2	-0.00326413	0.00029								1.00

Table 2. Calibration coefficients and correlation matrix.

Digital Elevation Model



Fig. 3. Reconstructed digital elevation model.

Processing Parameters

General

Cameras	32
Aligned cameras	32
Coordinate system	Local Coordinates (m)
Rotation angles	Yaw, Pitch, Roll

Tie Points

Points	318,848 of 345,631
RMS reprojection error	0.166146 (0.49395 pix)
Max reprojection error	0.498815 (18.9987 pix)
Mean key point size	3.33905 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	4.88978

Alignment parameters

Accuracy	High
Generic preselection	Yes
Reference preselection	No
Key point limit	100,000
Key point limit per Mpx	1,000
Tie point limit	0
Exclude stationary tie points	Yes
Guided image matching	No
Adaptive camera model fitting	No
Matching time	1 minutes 35 seconds
Matching memory usage	296.96 MB
Alignment time	6 minutes 22 seconds
Alignment memory usage	1.10 GB
Date created	2024:05:10 19:33:15
Software version	2.1.0.17532
File size	34.08 MB

Depth Maps

Count	32
Depth maps generation parameters	
Quality	High
Filtering mode	Mild
Max neighbors	16
Processing time	5 minutes 33 seconds
Memory usage	2.29 GB
Date created	2024:05:10 20:29:25
Software version	2.1.0.17532
File size	157.52 MB

Point Cloud

Points	11,194,827
Point attributes	
Color	3 bands, uint8
Normal	
Point classes	
Created (never classified)	11,194,827
Depth maps generation parameters	
Quality	High

Filtering mode	Mild
Max neighbors	16
Processing time	5 minutes 33 seconds
Memory usage	2.29 GB
Point cloud generation parameters	
Processing time	1 minutes 34 seconds
Memory usage	2.31 GB
Date created	2024:05:10 20:31:00
Software version	2.1.0.17532
File size	148.99 MB
Model	
Faces	1,531,733
Vertices	766,600
Vertex colors	3 bands, uint8
Depth maps generation parameters	
Quality	High
Filtering mode	Mild
Max neighbors	16
Processing time	5 minutes 33 seconds
Memory usage	2.29 GB
Reconstruction parameters	
Surface type	Arbitrary
Source data	Depth maps
Interpolation	Disabled
Strict volumetric masks	No
Processing time	2 minutes 0 seconds
Memory usage	2.23 GB
Date created	2024:05:11 17:23:41
Software version	2.1.0.17532
File size	32.88 MB
System	
Software name	Agisoft Metashape Professional
Software version	2.1.0 build 17532
OS	Windows 64 bit
RAM	31.94 GB
CPU	Intel(R) Core(TM) i7-9700K CPU @ 3.60GHz
GPU(s)	Quadro P2000