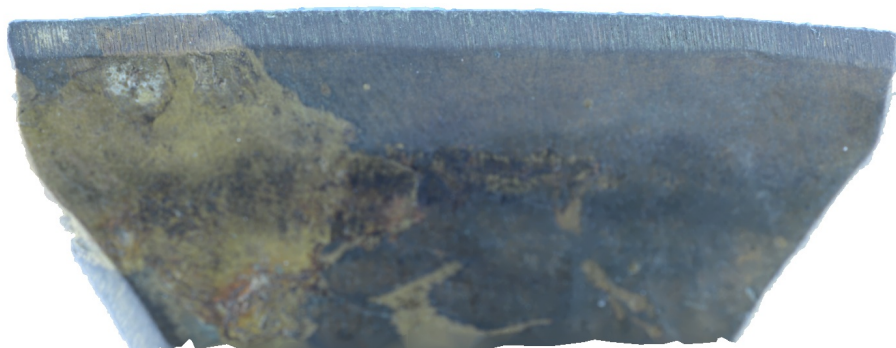


Jednoduché snímkování - hloubka ostrosti odhadem

Protokol
27 May 2024



Survey Data



Fig. 1. Camera locations and image overlap.

Number of images: 79

Camera stations: 79

Tie points: 134,874

Projections: 640,404

Reprojection error: 0.627 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
NIKON D7100 (40mm)	6000 x 4000	40 mm	4 x 4 μ m	No

Table 1. Cameras.

Camera Calibration

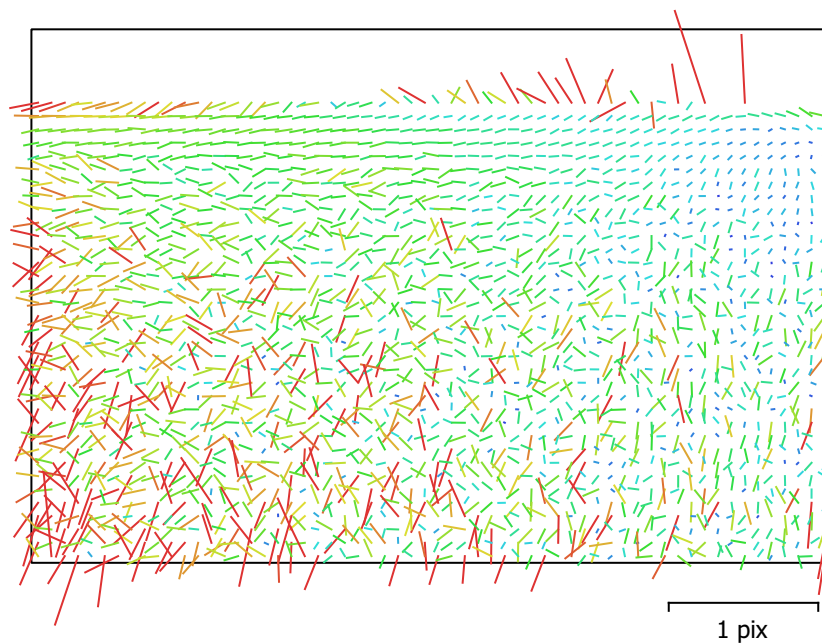


Fig. 2. Image residuals for NIKON D7100 (40mm).

NIKON D7100 (40mm)

79 images

Type	Resolution	Focal Length	Pixel Size
Frame	6000 x 4000	40 mm	4 x 4 μm

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	10183.7	1.2e+02	1.00	0.05	0.34	0.56	0.73	0.17	0.13	0.43
Cx	5.84148	3.1		1.00	0.21	0.34	0.01	0.04	-0.62	0.28
Cy	4.07047	11			1.00	0.67	0.01	0.33	-0.12	0.66
K1	-0.00855256	0.003				1.00	0.25	0.29	-0.17	0.89
K2	0.104718	0.0067					1.00	-0.55	0.12	0.23
K3	0.0403144	0.026						1.00	-0.01	0.17
P1	-0.00242263	0.00048							1.00	-0.15
P2	-0.00289337	0.00057								1.00

Table 2. Calibration coefficients and correlation matrix.

Digital Elevation Model

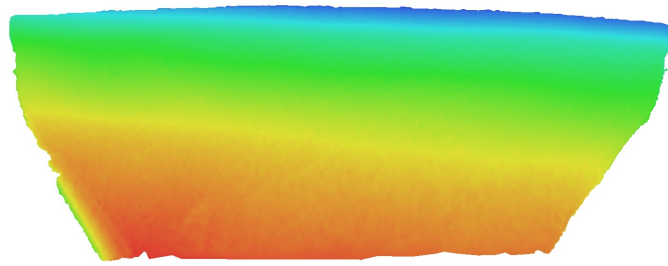


Fig. 3. Reconstructed digital elevation model.

Processing Parameters

General

Cameras	79
Aligned cameras	79
Coordinate system	Local Coordinates (m)
Rotation angles	Yaw, Pitch, Roll

Tie Points

Points	134,874 of 219,100
RMS reprojection error	0.145832 (0.627268 pix)
Max reprojection error	0.39999 (4.65724 pix)
Mean key point size	4.07774 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	5.40191

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
Filter points by mask	Yes
Mask tie points	No
Exclude stationary tie points	Yes
Guided image matching	No
Adaptive camera model fitting	No
Matching time	1 minutes 32 seconds
Matching memory usage	837.91 MB
Alignment time	4 minutes 31 seconds
Alignment memory usage	779.34 MB
Date created	2024:04:24 17:09:10
Software version	2.1.0.17532
File size	21.78 MB

Depth Maps

Count	78
Depth maps generation parameters	
Quality	High
Filtering mode	Mild
Max neighbors	16
Processing time	11 minutes 27 seconds
Memory usage	3.65 GB
Date created	2024:04:24 18:20:25
Software version	2.1.0.17532
File size	198.99 MB

Point Cloud

Points	7,292,842
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Point attributes

Color	3 bands, uint8
Normal	

Point classes

Created (never classified)	7,292,842
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Depth maps generation parameters

Quality	High
Filtering mode	Mild
Max neighbors	16
Processing time	11 minutes 27 seconds
Memory usage	3.65 GB

Point cloud generation parameters

Processing time	6 minutes 54 seconds
Memory usage	5.69 GB
Date created	2024:04:24 18:27:19
Software version	2.1.0.17532
File size	97.05 MB

Model

Faces	1,048,999
Vertices	524,910
Vertex colors	3 bands, uint8

Depth maps generation parameters

Quality	High
Filtering mode	Mild
Max neighbors	16
Processing time	11 minutes 27 seconds
Memory usage	3.65 GB

Reconstruction parameters

Surface type	Arbitrary
Source data	Depth maps
Interpolation	Disabled
Strict volumetric masks	Yes
Processing time	1 minutes 29 seconds
Memory usage	2.02 GB
Date created	2024:04:24 21:21:49
Software version	2.1.0.17532
File size	22.52 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