

Targu Jiu - Poarta Sarutului - 2016 vara

Integral
03 March 2020



Survey Data

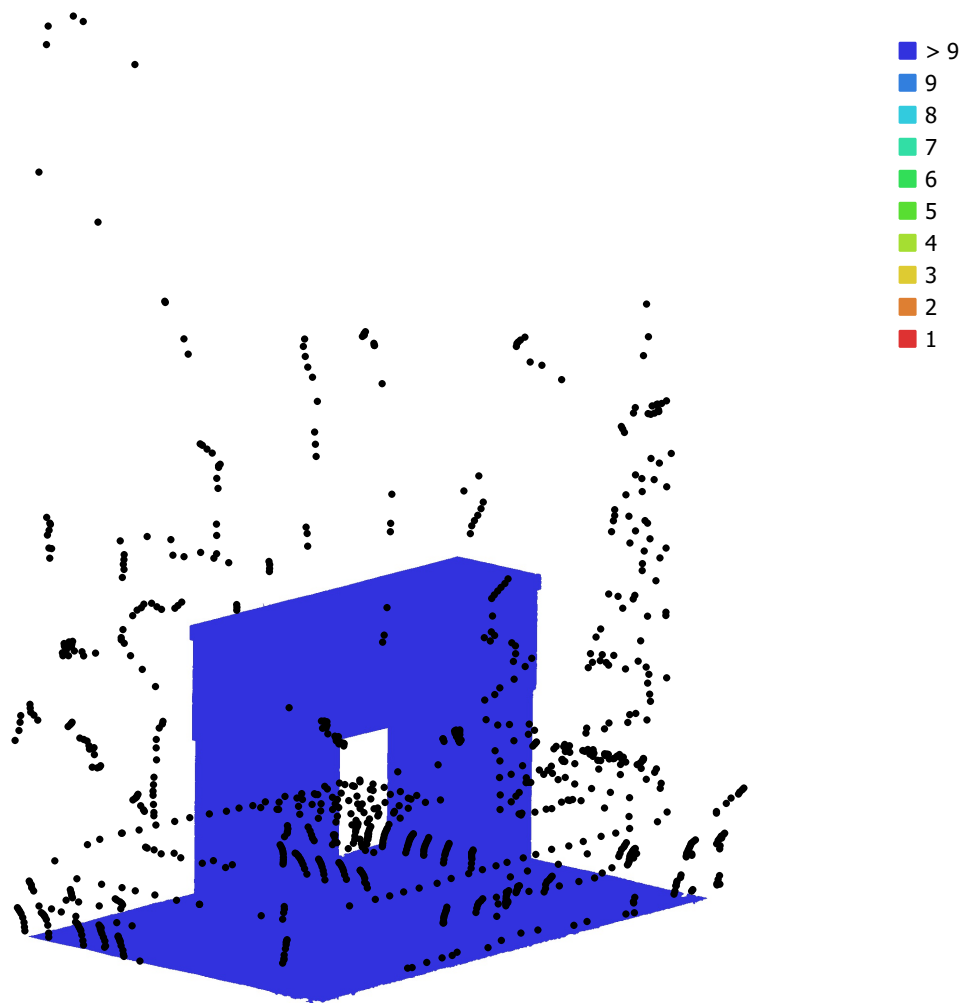


Fig. 1. Camera locations and image overlap.

Number of images: 894

Camera stations: 894

Tie points: 12,440,497

Projections: 42,408,929

Reprojection error: 0.445 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
NIKON D810 (60 mm)	5520 x 3680	60 mm	6.52 x 6.52 μm	No
NIKON D810 (60 mm)	3680 x 5520	60 mm	6.52 x 6.52 μm	No
NIKON D810 (20 mm)	5520 x 3680	20 mm	6.52 x 6.52 μm	No

Table 1. Cameras.

Camera Calibration

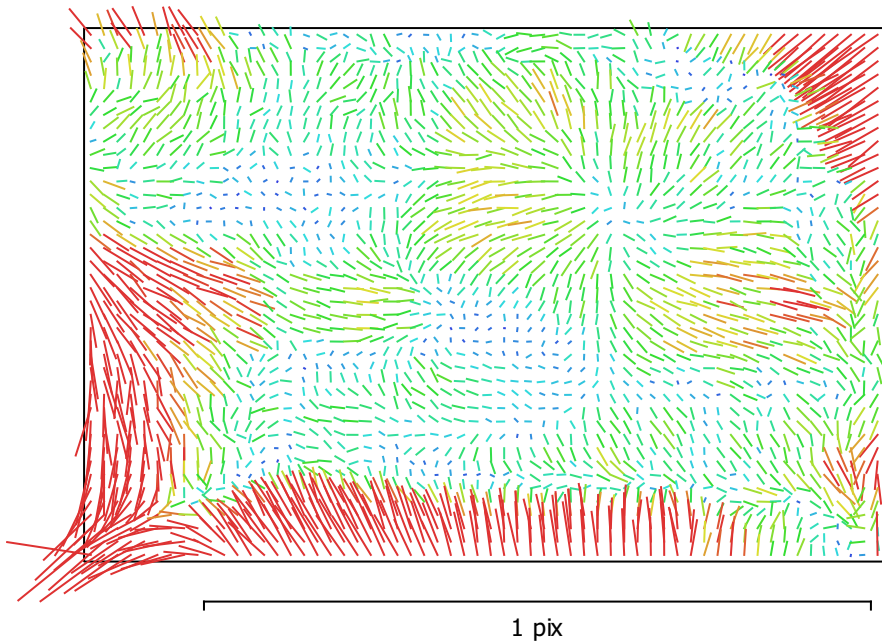


Fig. 2. Image residuals for NIKON D810 (60 mm).

NIKON D810 (60 mm)

865 images

Type	Resolution	Focal Length	Pixel Size
Frame	5520 x 3680	60 mm	6.52 x 6.52 μm
F:	9334.93		
Cx:	-19.7091	B1:	0
Cy:	4.37066	B2:	0
K1:	-0.0136339	P1:	0
K2:	-0.126415	P2:	0
K3:	0.193658	P3:	0
K4:	0	P4:	0

Camera Calibration

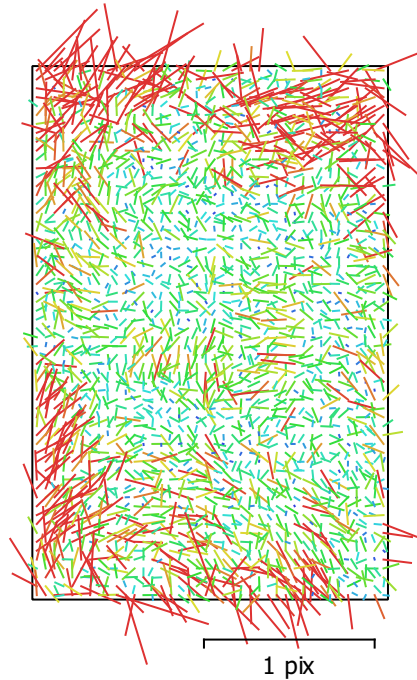


Fig. 3. Image residuals for NIKON D810 (60 mm).

NIKON D810 (60 mm)

4 images

Type	Resolution	Focal Length	Pixel Size
Frame	3680 x 5520	60 mm	6.52 x 6.52 μm
F:	9336.06		
Cx:	-0.0818442	B1:	0
Cy:	22.4011	B2:	0
K1:	-0.0188812	P1:	0
K2:	-0.052015	P2:	0
K3:	-0.0754344	P3:	0
K4:	0	P4:	0

Camera Calibration

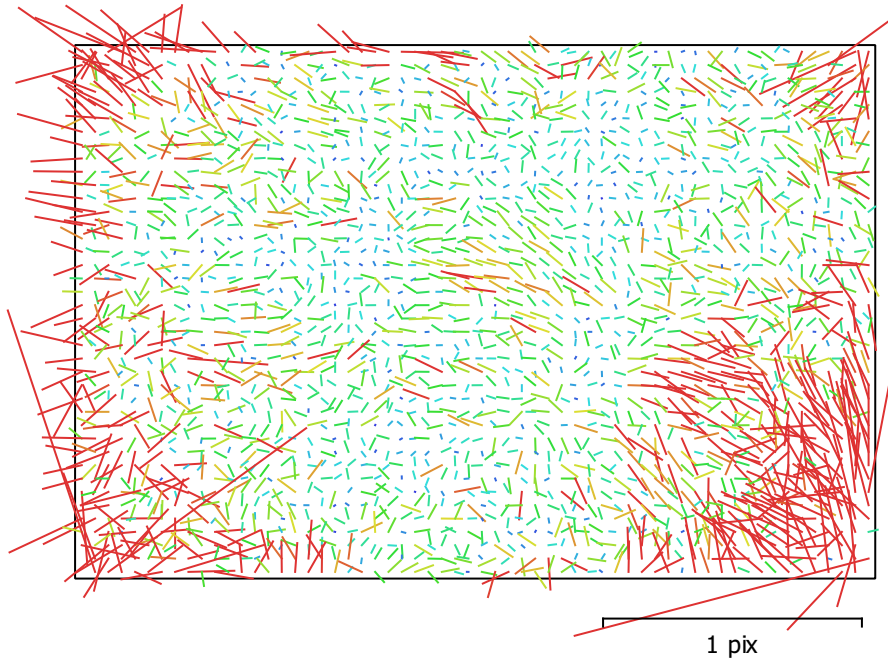


Fig. 4. Image residuals for NIKON D810 (20 mm).

NIKON D810 (20 mm)

25 images

Type	Resolution	Focal Length	Pixel Size
Frame	5520 x 3680	20 mm	6.52 x 6.52 μm
F:	3053.22		
Cx:	-19.1225	B1:	0
Cy:	-13.1593	B2:	0
K1:	-0.00400888	P1:	0
K2:	0.00786082	P2:	0
K3:	-0.00432555	P3:	0
K4:	0	P4:	0

Digital Elevation Model

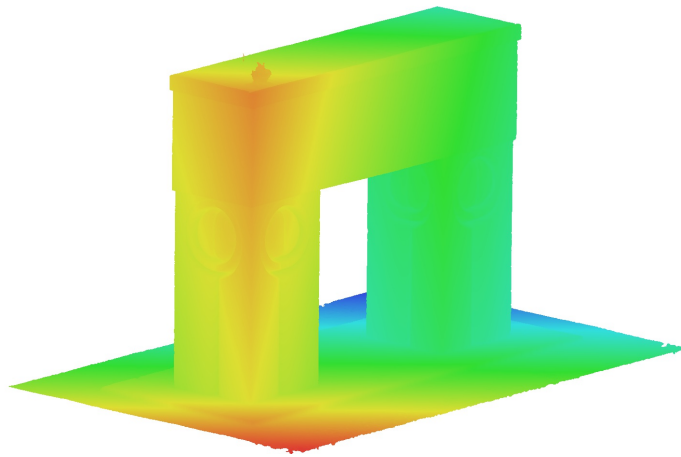


Fig. 5. Reconstructed digital elevation model.

Processing Parameters

General

Cameras	894
Aligned cameras	894
Markers	2
Scale bars	1
Coordinate system	Local Coordinates (m)
Rotation angles	Yaw, Pitch, Roll

Point Cloud

Points	12,440,497 of 15,250,657
Reprojection error	0.445059 (1.34409 max)
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	3.81251

Alignment parameters

Accuracy	High
Generic preselection	Yes
Reference preselection	No
Key point limit	0
Filter points by mask	No
Matching time	5 hours 0 minutes

Dense Point Cloud

Points	285,070,574
Point colors	3 bands, uint8

Depth maps generation parameters

Quality	High
Filtering mode	Moderate

Dense cloud generation parameters

Processing time	1 days 8 hours
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Model

Faces	5,999,999
Vertices	3,003,901
Vertex colors	3 bands, uint8
Texture	7,096 x 7,096 x 4, 4 bands, uint8

Depth maps generation parameters

Quality	High
Filtering mode	Moderate

Reconstruction parameters

Surface type	Arbitrary
Source data	Dense cloud
Interpolation	Enabled
Processing time	13 hours 4 minutes

Texturing parameters

Blending mode	Mosaic
Texture size	7,096
Enable color correction	Yes
Enable hole filling	Yes
UV mapping time	9 minutes 40 seconds
Blending time	1 hours 29 minutes

System

Software name	Agisoft Metashape Professional
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General

Software version	1.6.1 build 10009
OS	Windows 64 bit
RAM	127.89 GB
CPU	Intel(R) Xeon(R) CPU E5-2630 v3 @ 2.40GHz
GPU(s)	GeForce GTX TITAN X