

Agisoft PhotoScan

Processing Report

04 October 2017



Survey Data

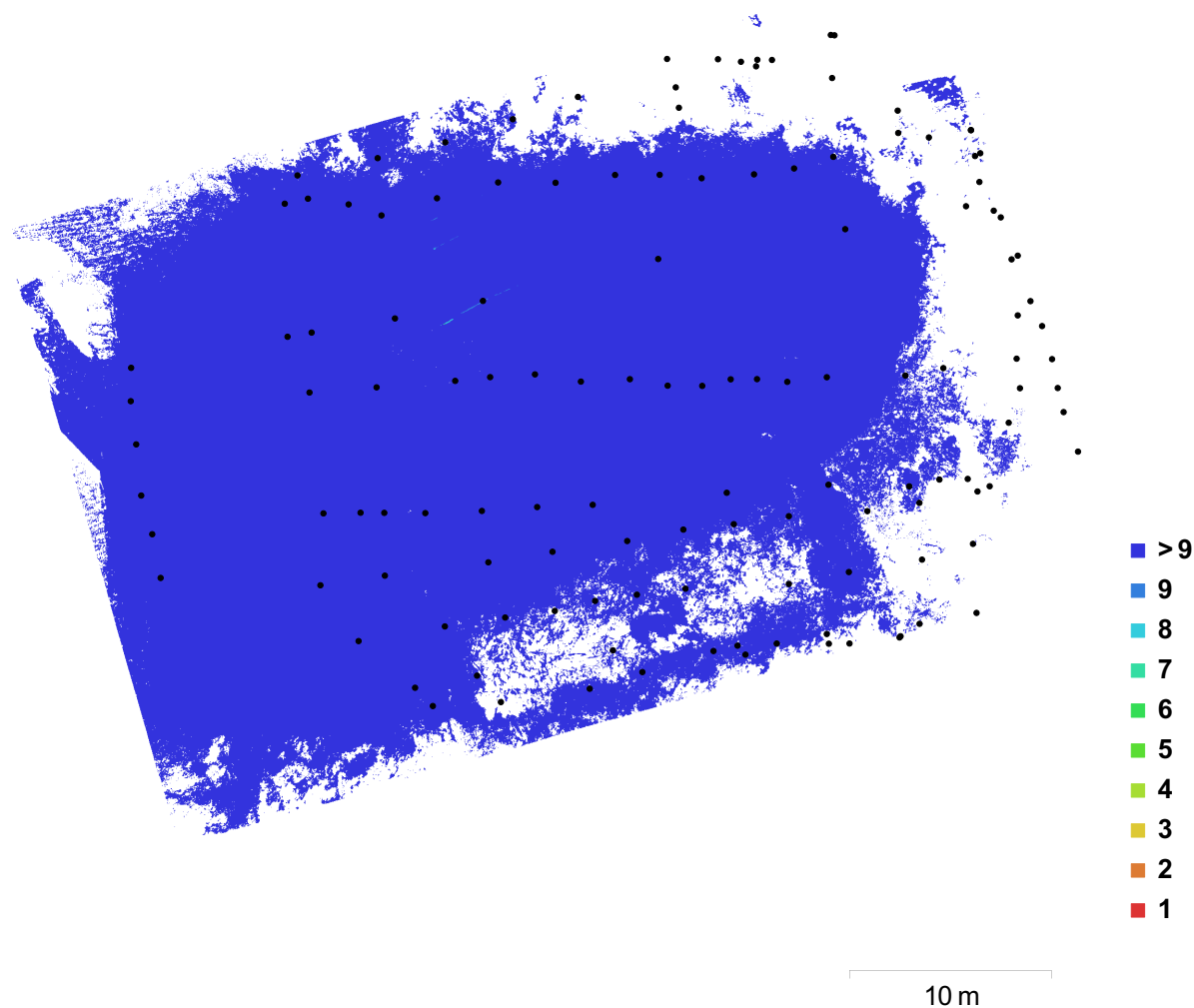


Fig. 1. Camera locations and image overlap.

Number of images:	132	Camera stations:	132
Flying altitude:	15.6 m	Tie points:	109,078
Ground resolution:	6 mm/pix	Projections:	415,360
Coverage area:	1.1e+03 sq m	Reprojection error:	1.77 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
FC330 (3.61 mm)	4000 x 3000	3.61 mm	1.56 x 1.56 um	No

Table 1. Cameras.

Camera Calibration

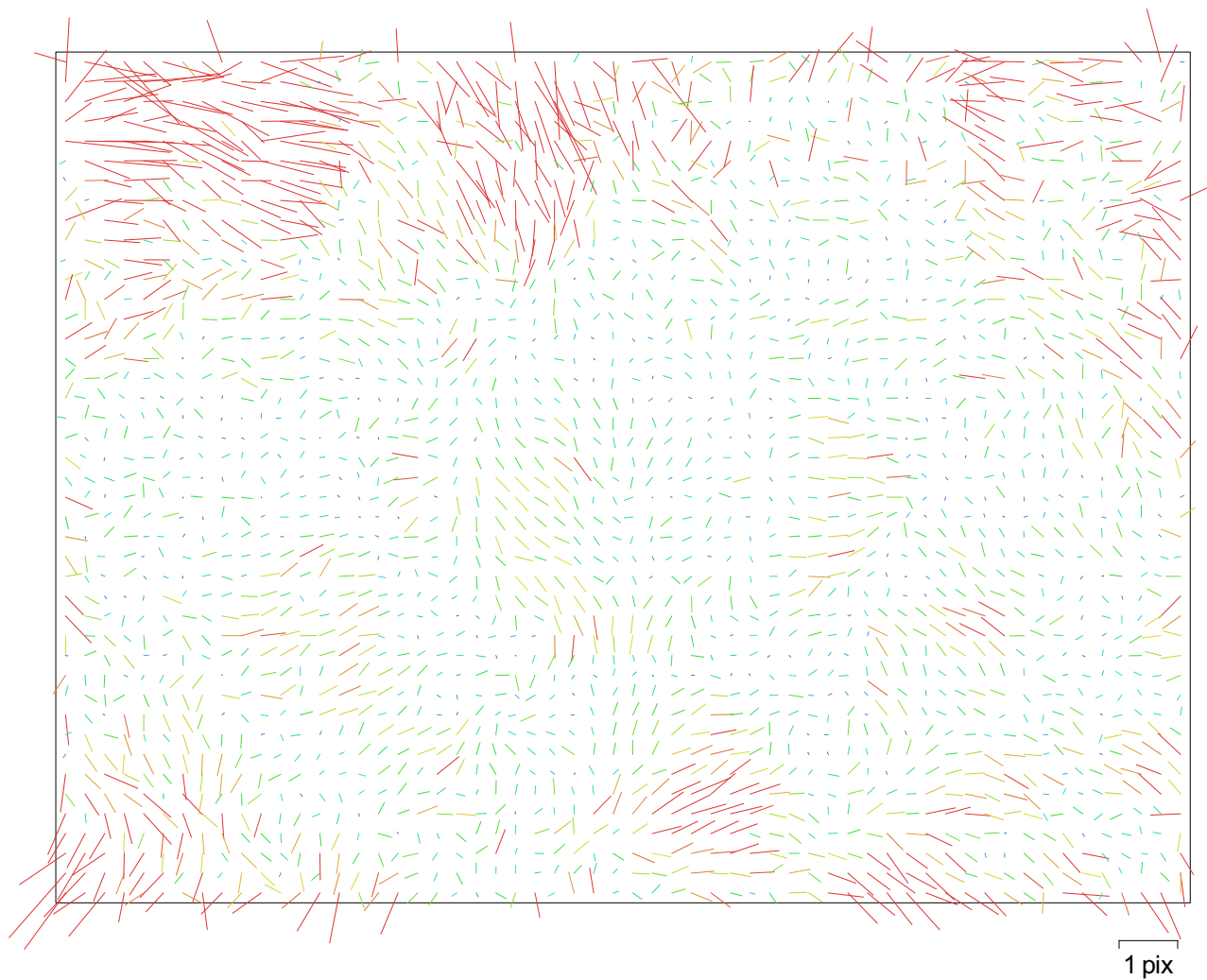


Fig. 2. Image residuals for FC330 (3.61 mm).

FC330 (3.61 mm)

132 images

Resolution	Focal Length	Pixel Size	Precalibrated
4000 x 3000	3.61 mm	1.56 x 1.56 um	No
Type:	Frame	F:	2324.21
Cx:	-32.6285	B1:	0
Cy:	-1.84921	B2:	1.83475
K1:	0.00152676	P1:	6.95754e-06
K2:	-0.00842429	P2:	5.53125e-05
K3:	0.00336939	P3:	0
K4:	0	P4:	0

Ground Control Points

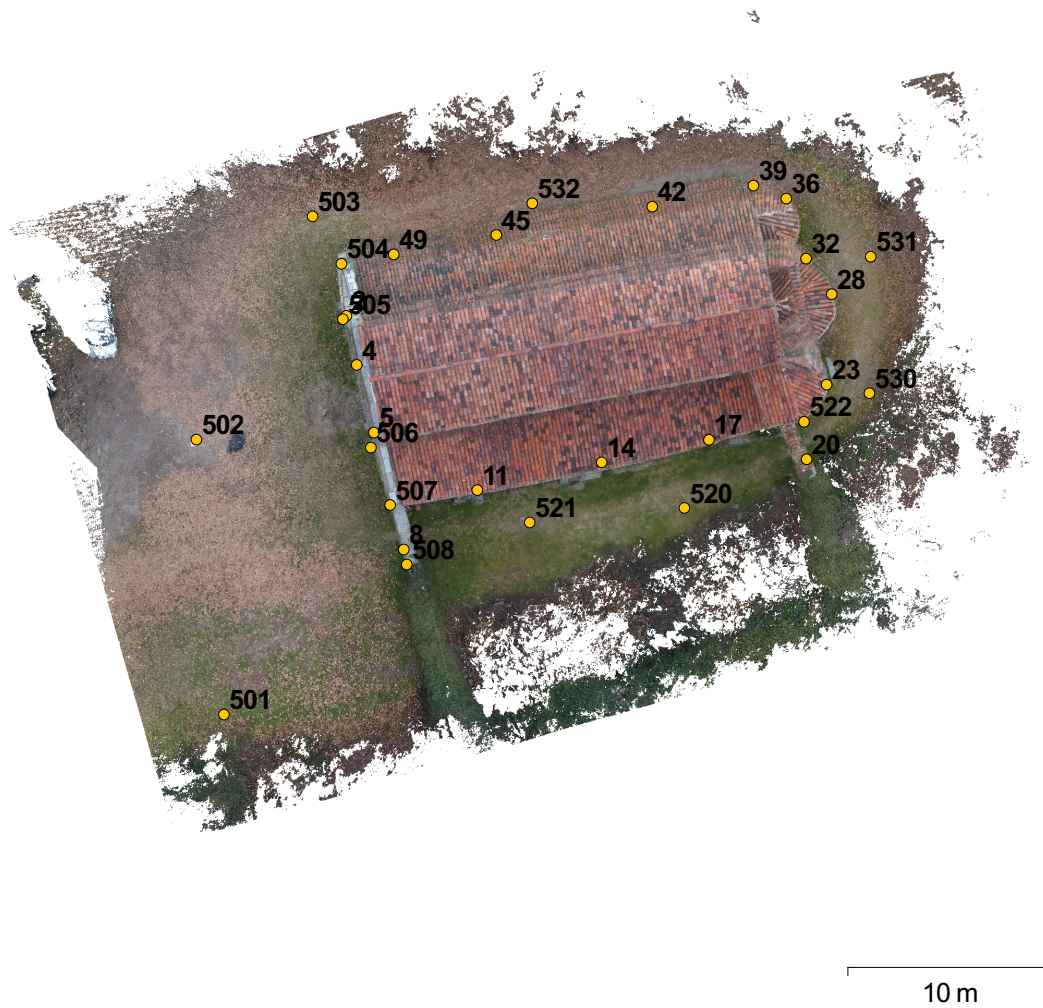


Fig. 3. GCP locations.

Label	XY error (m)	Z error (m)	Error (m)	Projections	Error (pix)
11	0.00438708	-0.005161	0.00677365	18	0.789
14	0.0168087	0.00714041	0.0182625	19	1.781
2	0.00877826	0.000491737	0.00879202	4	0.753
20	0.00975324	-0.00304732	0.0102182	20	0.746
23	0.00802779	0.00189365	0.00824811	23	1.049
32	0.00496583	-0.00391291	0.00632221	15	0.619
36	0.00671356	-0.00611521	0.00908118	11	0.619
39	0.00642518	-0.0128153	0.0143357	3	0.341
4	0.00907008	-0.00411294	0.00995905	7	0.763

Label	XY error (m)	Z error (m)	Error (m)	Projections	Error (pix)
42	0.0216933	-0.0052453	0.0223185	4	0.636
49	0.0101139	0.00926818	0.0137183	4	0.642
5	0.00293606	-0.00141094	0.00325748	6	0.336
501	0.0129001	-0.00385175	0.0134629	9	0.610
502	0.00612685	0.00156459	0.00632347	18	0.798
503	0.0117805	0.0133285	0.0177884	31	0.786
504	0.00993621	0.00307631	0.0104015	34	0.869
505	0.00422155	-0.00428116	0.00601247	36	1.312
507	0.00372197	-0.00644698	0.00744423	44	0.920
508	0.00845782	-0.00431016	0.00949275	40	0.867
520	0.00560047	0.0153429	0.0163331	41	3.809
521	0.00725714	0.00507863	0.00885769	35	1.578
530	0.00668386	0.00676729	0.00951158	64	1.096
531	0.00722185	0.000641862	0.00725032	47	0.746
8	0.0107416	-0.00639466	0.0125009	6	0.634
Total	0.00947389	0.00668068	0.0115925		1.432

Table 2. Control points.

Label	XY error (m)	Z error (m)	Error (m)	Projections	Error (pix)
17	0.0200836	0.00679814	0.0212029	18	1.493
28	0.0105877	-0.00544794	0.0119071	21	0.609
45	0.0145527	0.0293759	0.032783	6	0.981
506	0.0222455	-0.0188181	0.0291373	52	1.028
522	0.00908994	-0.00773285	0.0119342	44	1.260
532	0.0187671	-0.000230838	0.0187685	26	0.897
Total	0.0166179	0.0150156	0.0223969		1.093

Table 3. Check points.

Digital Elevation Model

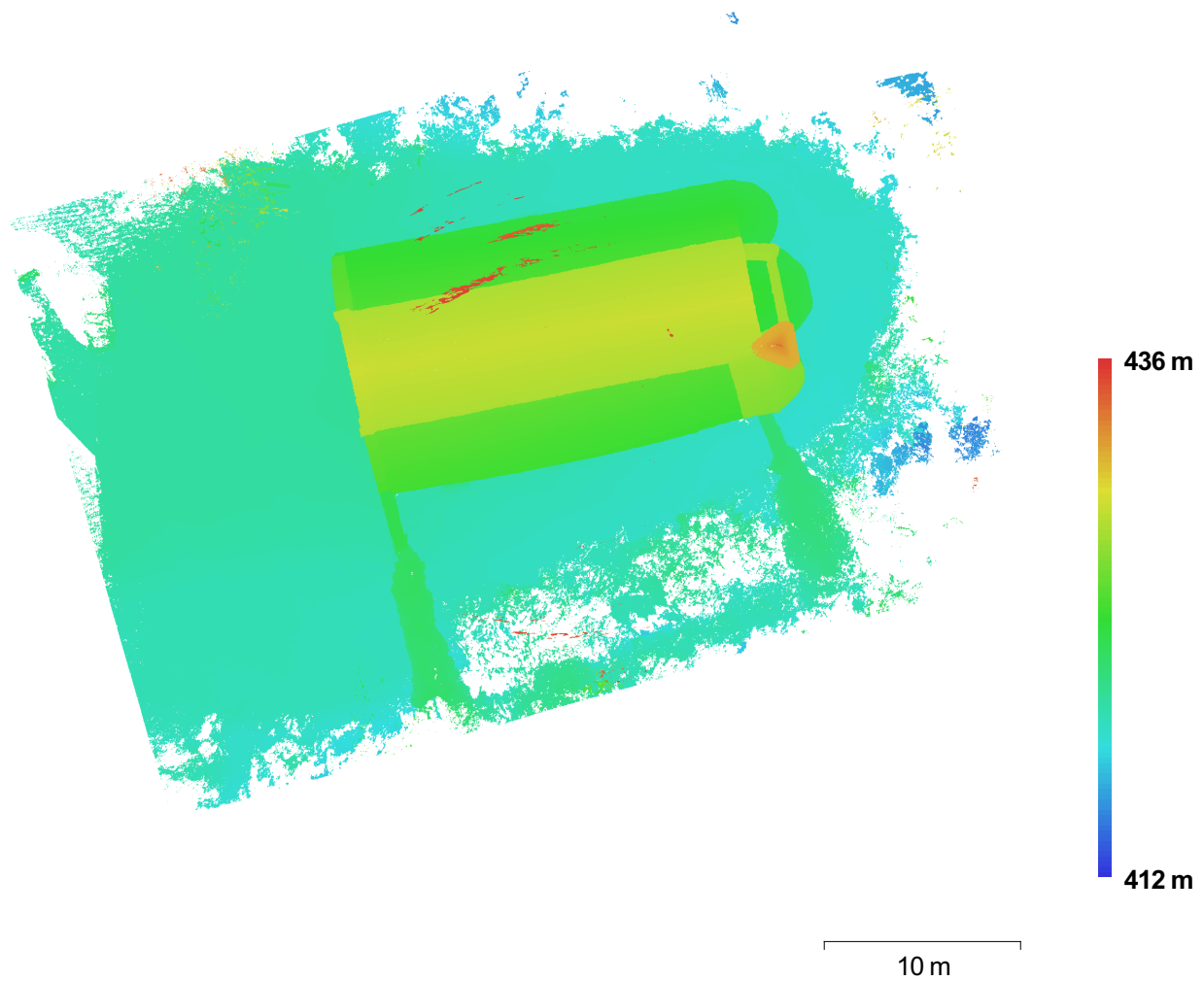


Fig. 4. Reconstructed digital elevation model.

Resolution: 1.2 cm/pix
Point density: 6949.61 points per sq m

Processing Parameters

General

Cameras	132
Aligned cameras	132
Markers	30
Coordinate system	WGS 84 / UTM zone 32N (EPSG::32632)

Point Cloud

Points	109,078 of 130,426
RMS reprojection error	0.257871 (1.76906 pix)
Max reprojection error	4.86005 (34.6872 pix)
Mean key point size	7.38808 pix
Effective overlap	4.42074

Alignment parameters

Accuracy	Medium
Pair preselection	Disabled
Key point limit	0
Tie point limit	0
Constrain features by mask	No
Matching time	16 minutes 42 seconds
Alignment time	2 minutes 30 seconds

Optimization parameters

Parameters	f, b2, cx, cy, k1-k3, p1, p2
Optimization time	2 seconds

Dense Point Cloud

Points	17,554,201
--------	------------

Reconstruction parameters

Quality	High
Depth filtering	Mild
Processing time	36 minutes 24 seconds

Model

Faces	3,510,782
Vertices	2,551,422
Texture	4,096 x 4,096, uint8

Reconstruction parameters

Surface type	Arbitrary
Source data	Dense
Interpolation	Disabled
Quality	High
Depth filtering	Mild
Face count	3,510,782
Processing time	9 minutes 15 seconds

Texturing parameters

Mapping mode	Orthophoto
Blending mode	Mosaic
Texture size	4,096 x 4,096
UV mapping time	24 seconds
Blending time	1 minutes 55 seconds