Agisoft Metashape

Processing Report

04 May 2025

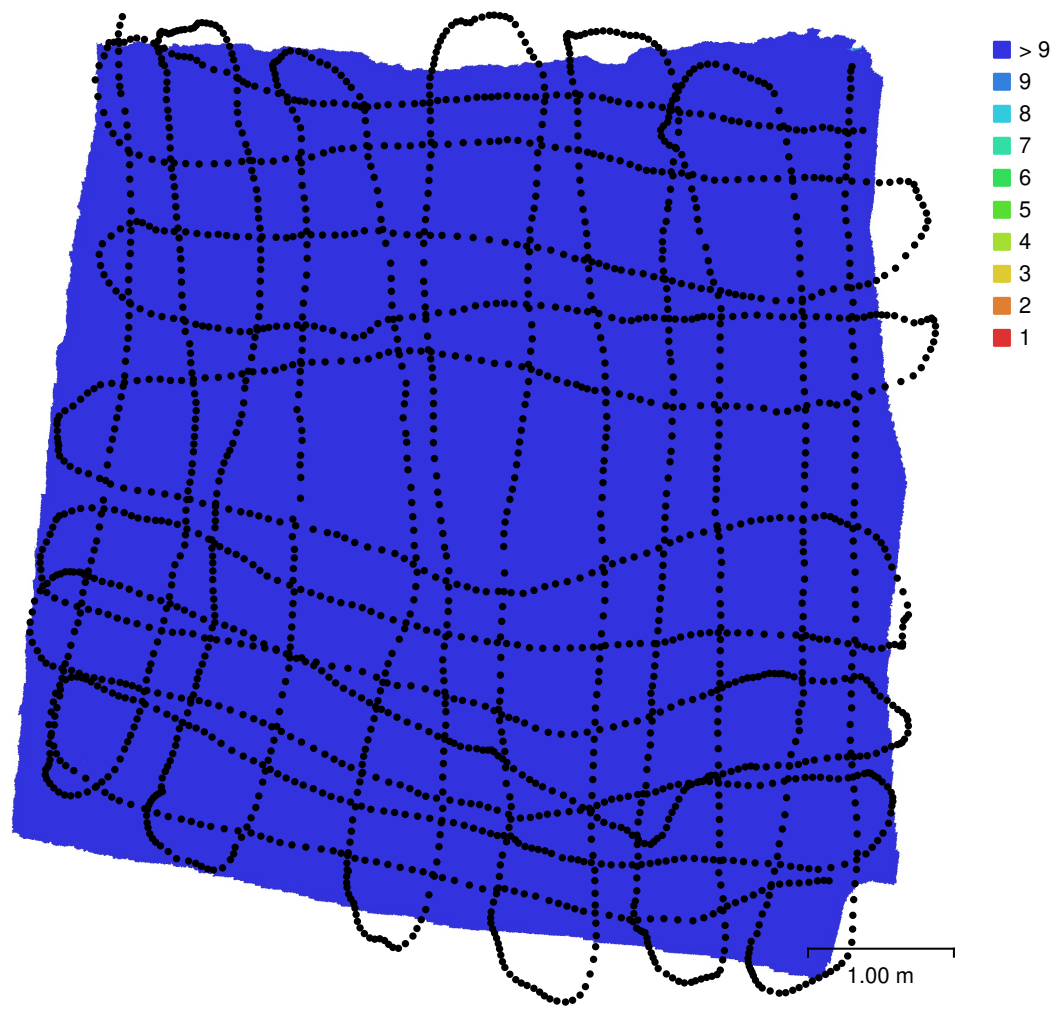# Survey Data

Fig. 1. Camera locations and image overlap.

Number of images:	2,201	Camera stations:	2,201
Flying altitude:	73.0 cm	Tie points:	521,313
Ground resolution:	0.231 mm/pix	Projections:	6,531,795
Coverage area:	33.8 m²	Reprojection error:	4.59 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
unknown	5312 x 4648	unknown	unknown	No

Table 1. Cameras.

Camera Calibration

8 pix
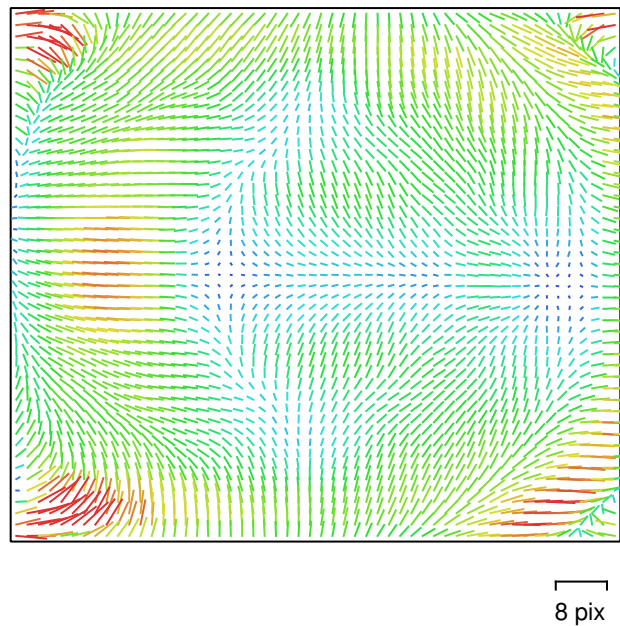
Fig. 2. Image residuals for unknown.

unknown

2201 images

Type	Resolution	Focal Length	Pixel Size
Frame	**5312 x 4648**	**unknown**	**unknown**

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	**3162.52**	0.11	1.00	0.29	0.32	-0.12	0.27	-0.02	-0.00	0.03
Cx	**-25.8008**	0.021		1.00	0.09	0.02	-0.00	0.10	0.65	-0.01
Cy	**-1.20114**	0.021			1.00	-0.01	0.06	0.01	-0.00	0.66
K1	**-0.0977724**	3.4e-05				1.00	-0.92	0.89	0.06	0.06
K2	**0.0990449**	7.1e-05					1.00	-0.95	-0.04	0.00
K3	**0.00136339**	4.6e-05						1.00	0.07	0.01
P1	**-0.00468186**	2.4e-06							1.00	0.03
P2	**-0.000365578**	2.4e-06								1.00

Table 2. Calibration coefficients and correlation matrix.

Scale Bars

Label	Distance (m)	Error (m)
point 1_point 2	5.18484	0.184841
point 2_point 3	5.27493	0.274928
point 3_point 4	4.47928	-0.520724
point 1_point 4	4.98541	-0.0145906
point 5_point 6	0.19165	-0.00835
point 7_point 8	0.118567	-0.0114327
Total		**0.252097**

Table 3. Control scale bars.

Digital Elevation Model

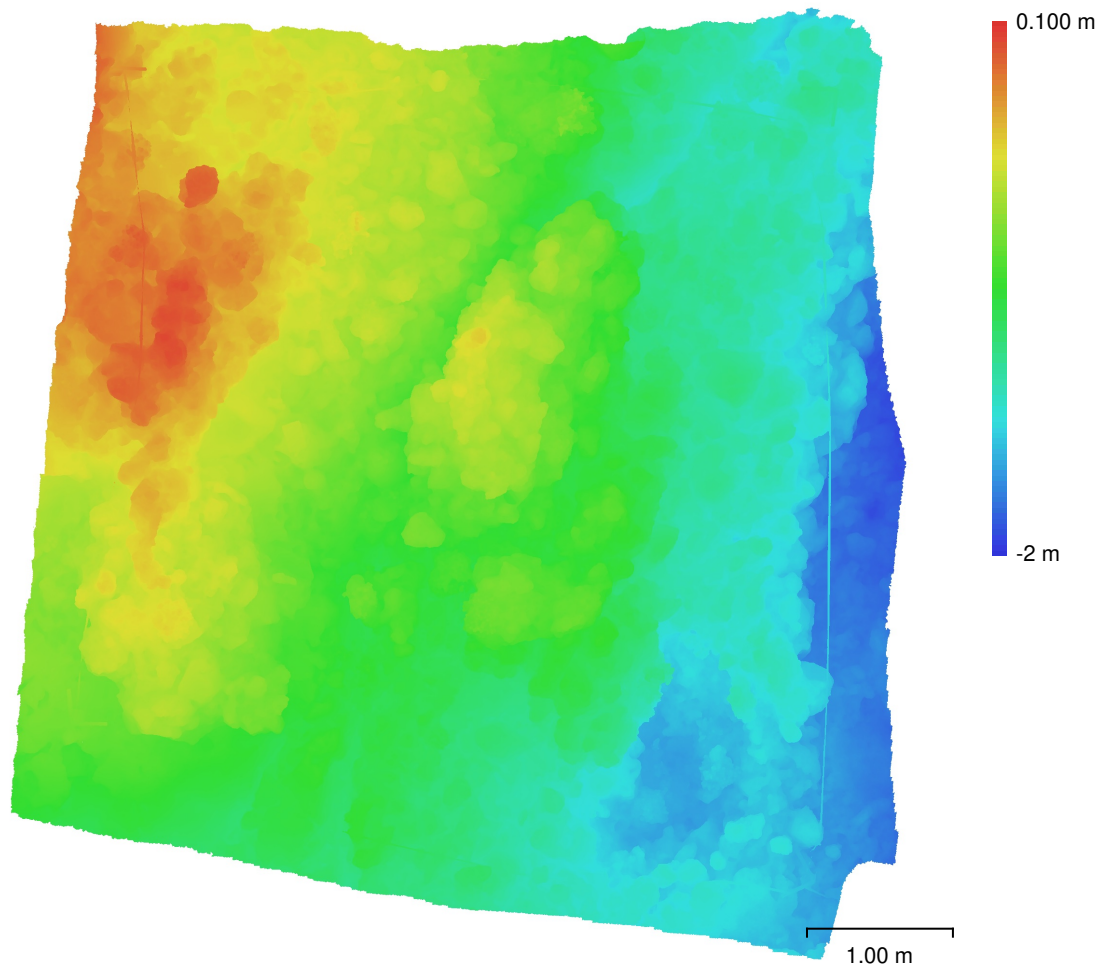Fig. 3. Reconstructed digital elevation model.

Resolution: unknown
Point density: unknown

Processing Parameters

General

Images	2201
Aligned images	2201
Markers	8
Scale bars	6
Coordinate system	Local Coordinates (m)
Rotation angles	Yaw, Pitch, Roll

Tie Points

Points	521,313 of 787,729
RMS reprojection error	0.579722 (4.59278 pix)
Max reprojection error	1.76613 (122.89 pix)
Mean key point size	8.18458 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	14.0697

Alignment parameters

Accuracy	Medium
Generic preselection	Yes
Reference preselection	No
Key point limit	40,000
Key point limit per Mpx	1,000
Tie point limit	4,000
Exclude stationary tie points	Yes
Guided image matching	No
Adaptive camera model fitting	No
Matching time	39 minutes 9 seconds
Matching memory usage	4.37 GB
Alignment time	1 hours 22 minutes
Alignment memory usage	1.76 GB
Date created	2025:04:10 16:27:12
Software version	2.2.0.19890
File size	183.59 MB

Depth Maps

Count	2201

Depth maps generation parameters

Quality	Medium
Filtering mode	Mild
Max neighbors	16
Processing time	46 minutes 47 seconds
Memory usage	2.29 GB
Date created	2025:04:16 11:09:12
Software version	2.2.0.19890
File size	5.69 GB

Point Cloud

Points	126,180,388
Coordinate precision	12.0 cm

Point attributes

Color	3 bands, uint8
Normal	
Confidence	1 - 102

Point classes
    Created (never classified)   126,180,388

Depth maps generation parameters
    Quality   Medium
    Filtering mode   Mild
    Max neighbors   16
    Processing time   46 minutes 47 seconds
    Memory usage   2.29 GB

Point cloud generation parameters
    Source data   Depth maps
    Processing time   8 hours 32 minutes
    Memory usage   12.15 GB
Date created   2025:04:16 21:32:03
Software version   2.2.0.19890
File size   1.77 GB

Model
Faces   5,314,882
Vertices   2,661,338
Vertex colors   3 bands, uint8
Texture   8,192 x 8,192, 3 bands, uint8

Depth maps generation parameters
    Quality   Medium
    Filtering mode   Mild
    Max neighbors   16
    Processing time   46 minutes 47 seconds
    Memory usage   2.29 GB

Reconstruction parameters
    Surface type   Arbitrary
    Source data   Depth maps
    Interpolation   Enabled
    Strict volumetric masks   No
    Processing time   32 minutes 53 seconds
    Memory usage   9.54 GB

Texturing parameters
    Mapping mode   Generic
    Blending mode   Mosaic
    Texture size   8,192
    Page count   1
    Enable hole filling   Yes
    Enable ghosting filter   Yes
    UV mapping time   4 minutes 3 seconds
    UV mapping memory usage   0 B
    Blending time   16 minutes 25 seconds
    Blending memory usage   13.96 GB
    Blending GPU memory usage   2.43 GB
Date created   2025:04:16 11:40:57
Software version   2.2.0.19890
File size   323.37 MB

DEM
Size   8,581 x 8,964
Resolution   0.940 mm/pix
Coordinate system   Local Coordinates (m)

Reconstruction parameters
    Source data   Point cloud
    Interpolation   Enabled
    Processing time   58 seconds

Memory usage	311.26 MB
Date created	2025:04:20 12:19:02
Software version	2.2.0.19890
File size	206.04 MB

Orthomosaic

Size	14,811 x 15,012
Resolution	0.500 mm/pix
Coordinate system	Local Coordinates (m)
Colors	3 bands, uint8
Orthophotos	2.80 GB

Reconstruction parameters

Blending mode	Mosaic
Surface	DEM
Enable hole filling	Yes
Enable ghosting filter	No
Processing time	25 minutes 21 seconds
Memory usage	1.10 GB
Date created	2025:04:20 12:47:32
Software version	2.2.0.19890
File size	2.94 GB

System

Software name	Agisoft Metashape Professional
Software version	2.2.0 build 19890
OS	Linux 64 bit
RAM	251.28 GB
CPU	Intel(R) Xeon(R) W-2223 CPU @ 3.60GHz
GPU(s)	NVIDIA RTX A5000