Agisoft Metashape

正在处理报告

24 February 2025

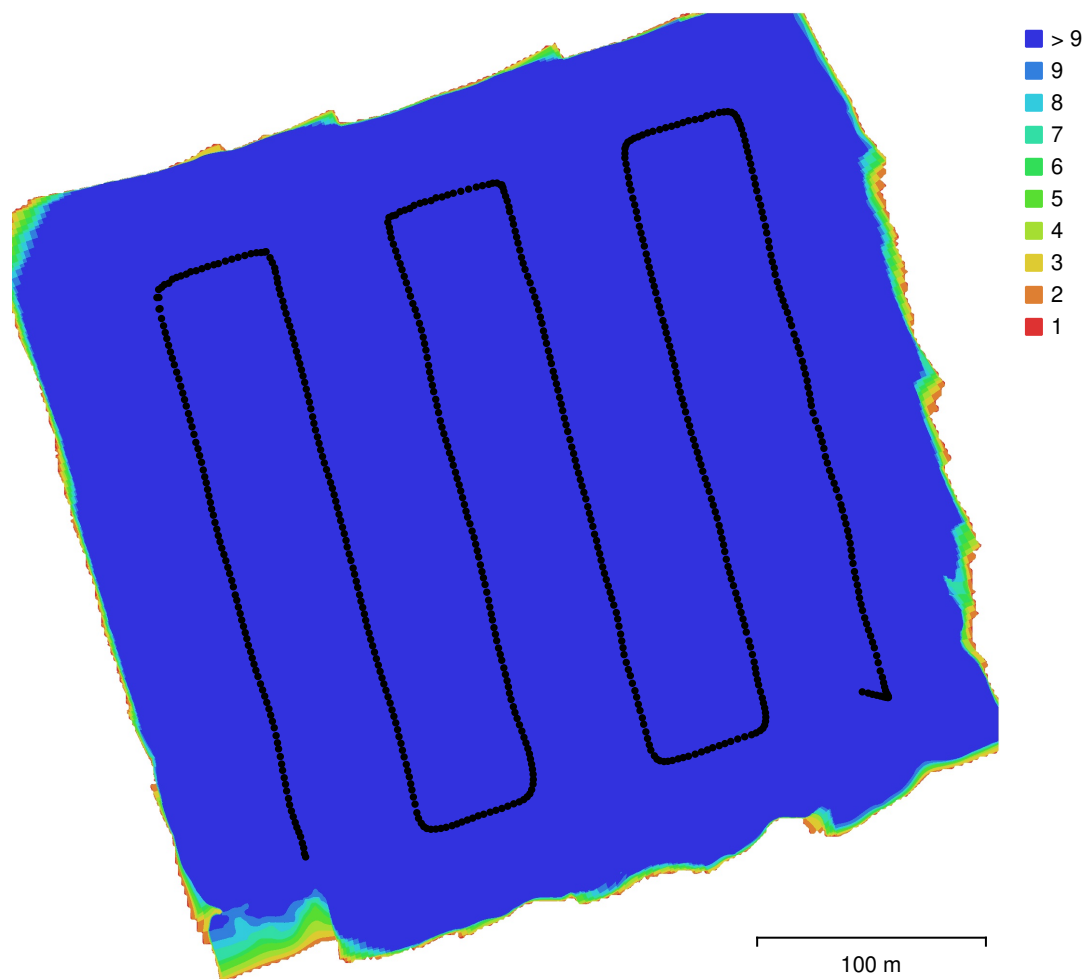# Survey Data

Fig. 1. Camera locations and image overlap.

Number of images:	655	Camera stations:	655
Flying altitude:	98.6 m	Tie points:	58,873
Ground resolution:	7.95 cm/pix	Projections:	249,077
Coverage area:	0.131 km²	Reprojection error:	1 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
alexa	1228 x 1026	unknown	unknown	No

Table 1. Cameras.

Camera Calibration

1 pix
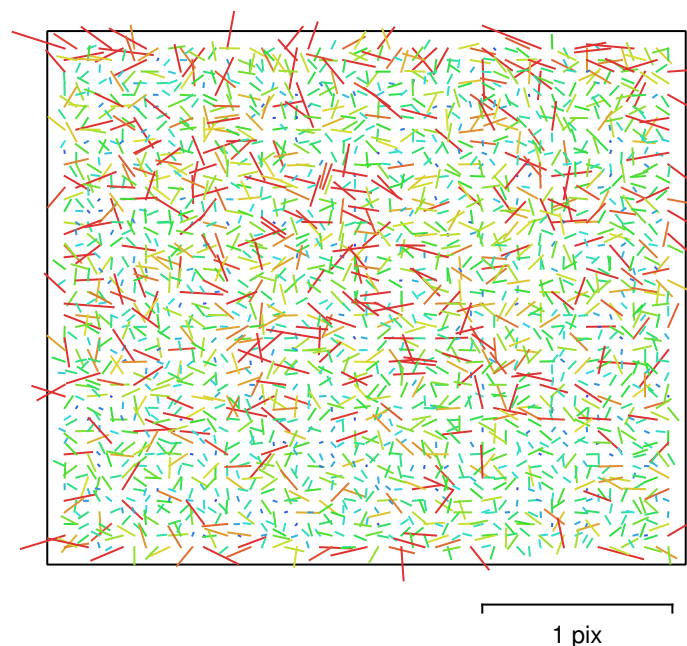
Fig. 2. Image residuals for alexa.

alexa

655 images

Type	Resolution	Focal Length	Pixel Size
Frame	**1228 x 1026**	**unknown**	**unknown**

	Value	Error	F	K1	K2
F	**1239.84**	4.3	1.00	-0.92	0.94
K1	**-0.210915**	0.0015		1.00	-0.94
K2	**0.146424**	0.0021			1.00

Table 2. Calibration coefficients and correlation matrix.
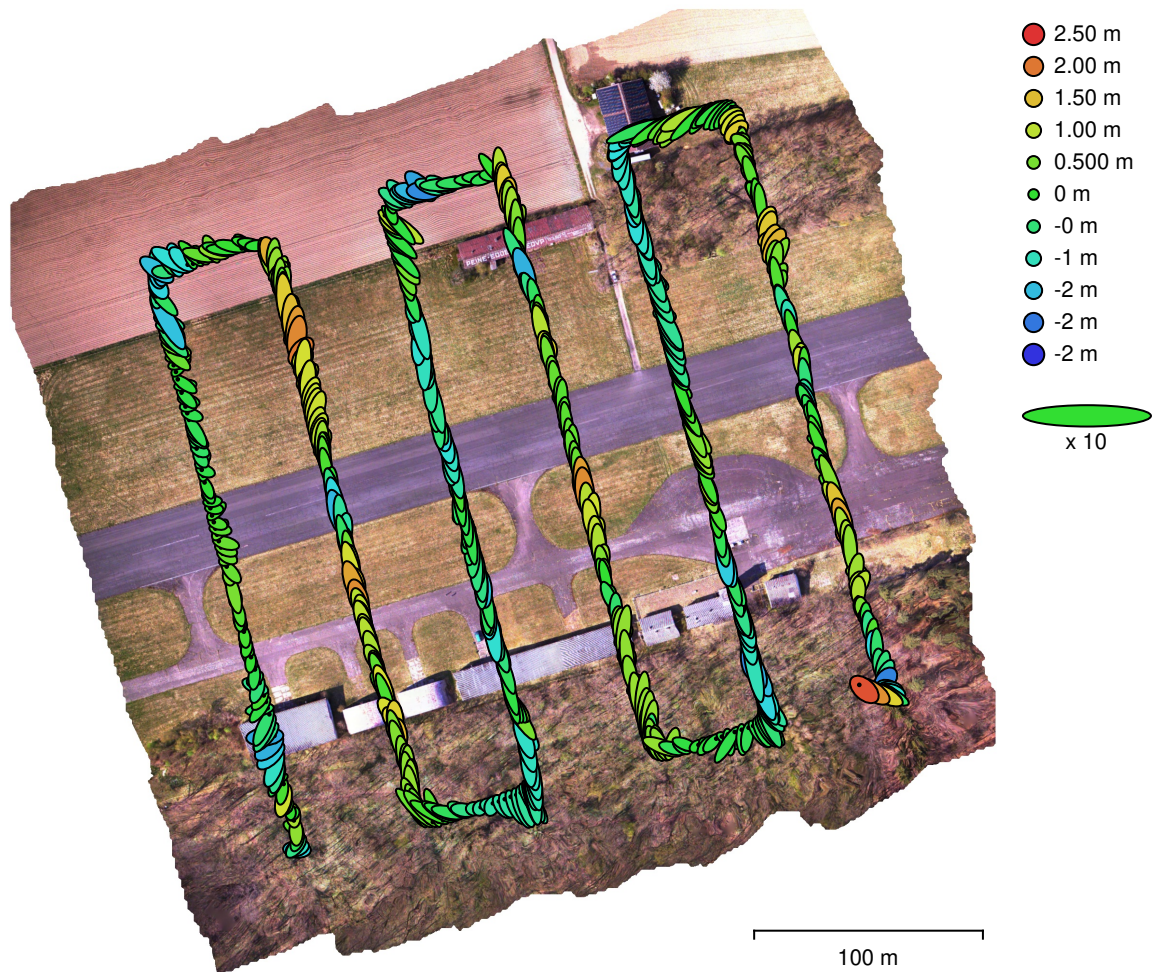
Camera Locations

Fig. 3. Camera locations and error estimates.

Z error is represented by ellipse color. X,Y errors are represented by ellipse shape.

Estimated camera locations are marked with a black dot.

X error (m)	Y error (m)	Z error (m)	XY error (m)	Total error (m)
0.445854	0.918077	0.77646	1.02061	1.2824

Table 3. Average camera location error.

X - Longitude, Y - Latitude, Z - Altitude.
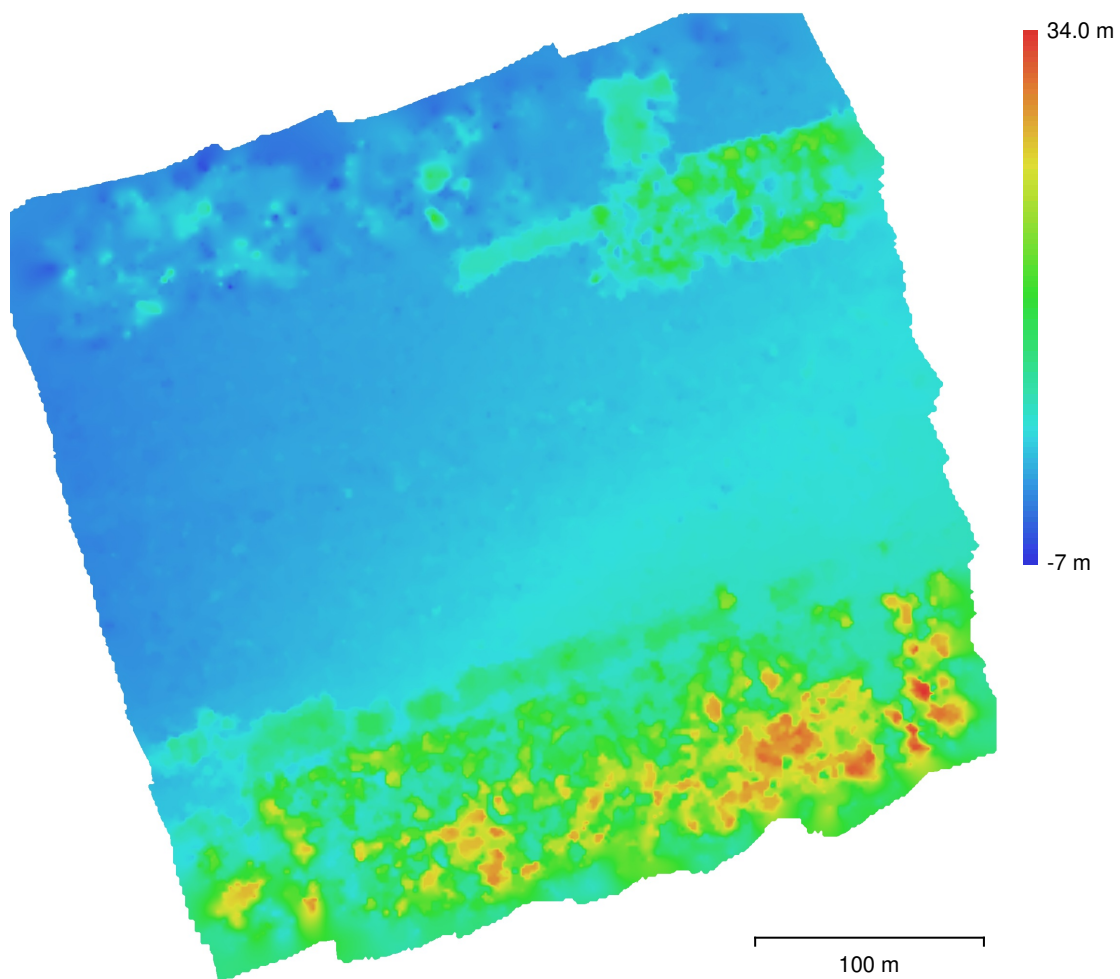
Digital Elevation Model

Fig. 4. Reconstructed digital elevation model.

Resolution: 1.34 m/pix
Point density: 0.553 points/m²

Processing Parameters

General

Images	655
Aligned images	655
Coordinate system	WGS 84 (EPSG::4326)
Rotation angles	Yaw, Pitch, Roll

Tie Points

Points	58,873 of 72,204
RMS reprojection error	0.161936 (1.00402 pix)
Max reprojection error	0.491658 (13.9992 pix)
Mean key point size	5.92198 pix
Point colors	3 bands, uint8
Key points	No
Average tie point multiplicity	4.99619

Alignment parameters

Accuracy	Medium
Generic preselection	Yes
Reference preselection	Source
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	Yes
Adaptive camera model fitting	Yes
Matching time	38 seconds
Matching memory usage	260.70 MB
Alignment time	3 minutes 41 seconds
Alignment memory usage	509.84 MB
Date created	2025:02:24 14:11:40
Software version	2.1.3.18946
File size	7.14 MB

DEM

Size	321 x 364
Resolution	1.34 m/pix
Coordinate system	WGS 84 (EPSG::4326)

Reconstruction parameters

Source data	Tie points
Interpolation	Enabled
Processing time	1 seconds
Memory usage	0 B
Date created	2025:02:24 14:15:31
Software version	2.1.3.18946
File size	431.20 KB

Orthomosaic

Size	4,314 x 4,220
Resolution	10.0 cm/pix
Coordinate system	WGS 84 (EPSG::4326)
Colors	3 bands, uint8
Orthophotos	326.72 MB

Reconstruction parameters

Blending mode	Mosaic

Surface	DEM
Enable hole filling	Yes
Enable ghosting filter	No
Processing time	47 seconds
Memory usage	755.17 MB
Date created	2025:02:24 14:16:46
Software version	2.1.3.18946
File size	347.30 MB

System

Software name	Agisoft Metashape Professional
Software version	2.1.3 build 18946
OS	Linux 64 bit
RAM	62.51 GB
CPU	Intel(R) Core(TM) i7-8700 CPU @ 3.20GHz
GPU(s)	NVIDIA GeForce GTX 1070